AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY
Carlsbad, California
Prepared for
City of Carlsbad
Keyser Marston Associates, Inc.
September 2013
September 2013

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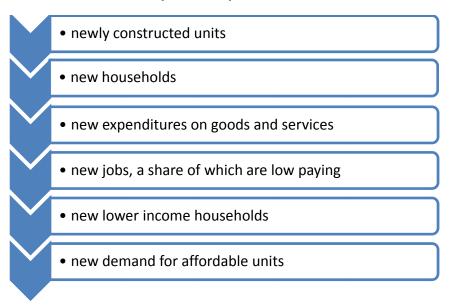
**SUMMARY AND RECOMMENDATIONS** 

Keyser Marston Associates, Inc. 13100ndh 11060.009.006

#### INTRODUCTION

The Summary and Recommendations provides an overview of the analysis and a discussion of the findings of a residential nexus analysis conducted for the City of Carlsbad (City) to estimate the impact of market-rate rental housing on the need for affordable housing. As illustrated in Exhibit 1, the residential nexus analysis quantifies the linkages between new market-rate rental units and the demand for affordable housing:





The conclusion of the nexus analysis reflects the maximum mitigation impact fee supported to offset affordable housing demand caused by the development of market-rate rental housing.

Recent court rulings have questioned whether a city can impose an inclusionary ordinance on a market-rate rental development (*Palmer/Sixth Street Properties v. City of Los Angeles* [Palmer]), and the legitimacy of affordable housing in-lieu fees (*Building Industry Association of Central California vs. City of Patterson* [Patterson]).

Under Palmer, the California Court of Appeals ruled in July 2009 that local inclusionary housing requirements when applied to rental housing violate State laws governing rent controls. As a result, many cities have restructured their inclusionary housing rental programs into mitigation (or impact) fee based programs. The residential nexus analysis takes into consideration the Palmer decision and demonstrates the impact fee levels supported from a nexus perspective.

The Patterson case invalidated in-lieu affordable housing fees if "no reasonable relationship" is found between the construction of market-rate housing and the need for affordable housing. As such, instead of establishing fees based on a city's citywide need for affordable housing, affordable housing impact fees must be rationally related to the impact caused by market-rate housing. The purpose of the nexus study is to analyze the nexus between new market-rate rental development and to calculate a nexus-based housing impact fee.

The materials have been prepared by Keyser Marston Associates (KMA) for the City pursuant to a contractual agreement. The residential nexus analysis addresses market-rate rental housing developments in the City; the analysis quantifies the linkages between new market-rate rental units and the demand for affordable housing in Carlsbad.

The City of Carlsbad's existing Inclusionary Housing Ordinance requires all new ownership residential projects to set aside at least 15% of units so as to be restricted in terms of occupancy and affordability to lower income households. Lower- income households include Low-income, Very low-income, and Extremely low-income households, whose gross income does not exceed 80% of Area Median Income (AMI) for San Diego County as determined annually by the U.S. Department of Housing and Urban Development (City of Carlsbad Municipal Code §21.85.020). In accordance with the Palmer ruling, the City of Carlsbad amended its Inclusionary Housing Ordinance in 2010. As a result, the City no longer applies its Inclusionary Housing Ordinance to rental developments unless the developer has received direct financial assistance or other development incentives or concessions from the City and the developer agrees by contract to limit rents for below market-rate rental units. Developers may also voluntarily agree to provide inclusionary rental units. Subdivisions with fewer than seven units are allowed the payment of an in-lieu fee to fulfill their inclusionary housing obligations. The fee is based on the difference in cost to produce a market-rate rental unit versus a lowerincome affordable unit. As of September 1, 2012, the in-lieu fee per market-rate for-sale unit was \$4,515. This fee was established in 1996 and has not been updated since. This fee is currently paid by developments of six (6) units or less, which also have an inclusionary requirement per the City's Inclusionary Ordinance. This fee is not proposed for change at this time. A new fee is being considered for application to market-rate rental developments of any size, which are not subject to the City's Inclusionary Ordinance but create a need for affordable housing for low income households.

#### The Nexus Concept

The underlying nexus concept is that the newly constructed market-rate rental units represent new households in Carlsbad. These households represent new income in Carlsbad that will consume goods and services, either through purchases of goods and services or by "consuming" governmental services. New consumption translates to new jobs; a portion of the jobs are at lower compensation levels, low compensation jobs translate to lower income households that cannot afford these market-rate units in Carlsbad and therefore need affordable housing.

# Impact Methodology and Models Used

The analysis is performed using two models. The IMPLAN model is a commercially available model developed over 30 years ago to quantify the impacts of changes in a local economy, including the employment impacts of changes in personal income. The IMPLAN model is "inputted" with net new personal income in Carlsbad and moves through a series of adjustments to disposable income, a distribution of expenditures, and ultimately produces a quantification of jobs generated by industry. The KMA jobs housing nexus model, which was developed nearly 20 years ago to analyze the income structure of job growth, is used to determine the household income of new employee households, identifying how many are at lower-income and housing affordability levels.

# **Organization of this Document**

- Following the Summary and Recommendations is the technical nexus analysis report
   (Appendix I) and a detailed discussion of market-rate and affordable residential values
   (Appendix II). The Summary and Recommendations is not intended as a stand-alone
   document and should not be printed or distributed without the appendices explaining all
   the analyses and underlying assumptions.
- Appendix I contains the full Residential Nexus Analysis report and all the tables that are a part of the analysis.
- Appendix II Residential Values Market and Affordable is a background section that
  establishes the market values of various types of attached residential units or "projects"

based on surveys of new units renting in Carlsbad. This appendix also contains a discussion of affordable rent levels at various affordability levels, per the current Area Median Income (AMI), and contains a calculation of affordability gaps.

This report has been prepared using the best and most recent data available. Local data and sources were used wherever possible. See Appendices I and II for more information.

## **Analysis Summary**

# The Prototypes

Four residential rental prototypes, presented in detail in Appendix II, were identified for Carlsbad based on input from City staff. The four prototypes are summarized below:

- A townhome unit, built at an average density of 12 units to the acre. Includes a mix of two and three bedrooms, averaging 1,250 square feet (SF) renting for \$2,146.
- A garden apartment unit in a project with an average density of 20 units per acre. Includes one, two, and three bedroom units averaging 860 SF. Market rent is estimated at \$1,770 per month.
- A stacked flat apartment unit in a project with an average density of 30 units per acre.
   Includes a mix of one and two bedroom units, averaging 820 SF, renting for \$1,805 per month.
- Mixed-use stacked flats over ground floor retail with an average density of 28 units per acre. Includes one and two bedroom units averaging 750 SF and 3,000 SF of retail space on the ground floor. Average market rent is estimated at \$1,927 per month for the residential component and \$2.50 per SF per month triple-net (NNN) for the commercial component.

#### Household Income

From the rent level of the four prototypes, the household income of the renter is readily estimated using standard housing policy and lending standards established by local, State, and Federal affordable housing programs. Renters are assumed to spend 30% of their household income on total housing expenses. Household income for each prototype unit is estimated in Exhibit 2.

Exhibit 2: Household Income						
		Garden	Stacked Flat	Mixed-Use		
	Townhome	Apartments	Apartments	Rental		
Gross Household Income	\$86,000	\$70,700	\$72,300	\$77,000		

As would be expected, the higher rent units translate to higher household income.

This study references "Extremely low, "Very low," "Low," and "Lower" household incomes. These terms and their descriptions are as defined in the Inclusionary Housing Ordinance, Carlsbad Municipal Code §21.85.020.

#### Jobs Generated

The next steps in the nexus analysis are conducted within the IMPLAN model. Gross household income is adjusted to disposable income, or income after State and Federal taxes, Social Security and Medicare deductions, and personal savings.

To simplify the presentation of results, the analysis is run for building modules of 100 housing units. This avoids awkward fractions, especially at the detailed level by job industry. The IMPLAN model output provides jobs by industry; the total numbers of jobs generated are shown in Exhibit 3. The geographic area of job generation is San Diego County.

Exhibit 3: Jobs Generated per 100 Units						
	Townhome	Garden Apartments	Stacked Flat Apartments	Mixed-Use Rental		
Gross Household Income	\$86,000	\$70,700	\$72,300	\$77,000		
Total Jobs Generated, 100 units	64.3	53.1	54.3	57.5		

The IMPLAN model quantifies jobs generated at establishments that serve new residents directly (i.e. supermarkets, banks, or schools), jobs generated by increased demand at firms which service or supply these establishments (wholesalers, janitorial contractors, accounting firms, or any jobs down the service/supply chain from direct jobs), and jobs generated when the new employees spend their wages in the local economy and generate additional jobs.

## Compensation Levels of Jobs and Household Income

The output of the IMPLAN model – the numbers of jobs by industry – are then "input" into the KMA jobs housing nexus analysis model to quantify the compensation level of new jobs and the income of the worker households. The KMA model sorts the jobs by industry into jobs by occupation, based on national data, and then attaches wage distribution data to the occupations, using recent San Diego County data from the California Employment Development Department (EDD). The KMA model also converts the number of employees to the number of employee households, recognizing that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers is reduced.

As shown in Exhibit 4, the output of the model is the number of new worker households by income level expressed in relation to AMI attributable to the new market-rate rental units and new households in Carlsbad.

Exhibit 4: No	Exhibit 4: New Worker Households by Income Level per 100 Market-Rate Units					
Household In	acome Category	Townhome	Garden Apartments	Stacked Flat Apartments	Mixed-Use Rental	
Very low	Up to 50% AMI	12.4	10.1	10.3	11.1	
Low	Greater than 50% but not exceeding 80% AMI	10.8	8.9	9.1	9.7	
Total, Not exceeding 80% AMI		23.2	19.0	19.4	20.8	
Greater than 80% AMI		14.2	11.9	12.2	12.7	
Total, New Households		37.4	30.9	31.6	33.5	

#### **Comparison of Analysis Results to Inclusionary Percentages**

The analysis findings identify how many lower income households are generated for every 100 market-rate rental units. As shown in Exhibit 5, these findings are adjusted to percentages for purposes of comparison to the on-site inclusionary requirements. The percentages are calculated including both market-rate and affordable rental units (for example, 25 affordable units per 100 market-rate rental units translates to 125 total rental units; 25 affordable units out of 125 units equals 20%).

Exhibit 5: Cu	Exhibit 5: Cumulative Inclusionary Percentage Supported by Nexus Analysis						
Household Income Category		Townhome	Garden Apartments	Stacked Flat Apartments	Mixed-Use Rental		
Very low	Up to 50% AMI	11.0%	9.2%	9.4%	10.0%		
Low	Greater than 50% but not exceeding 80% AMI	9.7%	8.1%	8.3%	8.8%		
Lower	Not exceeding 80% AMI	18.8%	16.0%	16.3%	17.2%		

The conclusion of the analysis is that the market-rate rental units analyzed support percentages up through Lower-income households (up to 80% AMI) in the range of 16.0% to 18.8%.<sup>1</sup>

## Fee Levels Supported by the Nexus Analysis

The last step in the analysis puts a dollar amount on the cost of mitigating the affordable housing impacts. The conclusions of the nexus analysis, expressed as the number of worker households by income affordability category, are linked to the cost of delivering housing to the households in need. The impact fee revenues could be used by the City to assist in producing rental units to mitigate the impacts of new market-rate rental units.

KMA developed an affordable unit prototype designed to represent the type of rental unit typically assisted by the City. Appendix II presents the survey materials, methodology, and findings as well as affordable rent calculations. For the nexus analysis, KMA assumes that households needing affordable housing will be housed in garden apartments. They are the least expensive and represent the product type that the City is most likely to assist in the future.

The cost of developing new residential units in Carlsbad was assembled from a number of sources. Land costs were gathered from recent land sale data collected by KMA. KMA is also actively working on a number of multi-family projects in various locations in San Diego County and has recent developer pro forma financial analyses from which to draw cost information.

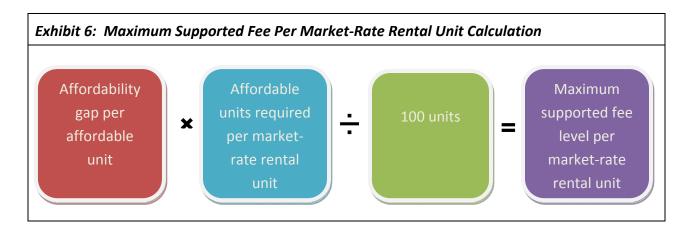
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<sup>&</sup>lt;sup>1</sup> The range of impact shown in Exhibit 5 in terms of demand for affordable housing exceeds the 15% requirement in the City's Inclusionary Ordinance applicable to new market-rate ownership housing (and previously applied to new market-rate rental housing as well).

Each income or affordability tier is associated with a subsidy needed to produce and deliver a unit at the specified affordability level. These subsidies are equal to affordability gaps, or the difference between the cost of development and the unit value supported by the rent that can be paid by a household at the specified income level.

When the affordability gap conclusions for each income tier are linked to the number of affordable units required as a result of market-rate development (as indicated in Exhibit 4), the result is a total nexus cost per new market-rate rental unit. Specifically, the maximum supported fee level per market-rate unit is derived from the calculation shown in Exhibit 6.



The results per unit are shown in Exhibit 7:

Exhibit 7: Maximum Supported Fee Level Per Market-Rate Rental Unit						
		Affordability		Garden	Stacked Flat	Mixed-Use
Household	Income Category	Gap	Townhome	Apartments	Apartments	Rental
Very low	ery low Up to 50% AMI \$119,000		\$14,700	\$12,000	\$12,300	\$13,200
Low	Greater than 50% but not exceeding 80% AMI	\$112,500	\$12,200	\$10,000	\$10,300	\$10,900
Maximum : Level	Supported Fee		\$26,900	\$22,000	\$22,600	\$24,100

As shown in Exhibit 7, the residential nexus analysis supports maximum fee levels ranging from \$22,000 to \$26,900 per market-rate rental unit, depending on the development prototype. The per-unit maximum fees indicated in the table above result in a predictably higher fee per unit associated with the bigger or more expensive rental housing unit and the higher income (and expenditures) of the more affluent households.

The total nexus costs indicated above may also be expressed on a per-square-foot level. The square foot (SF) areas of the prototype units used throughout the analysis become the basis for the calculation. Again, see Appendix II for more discussion of the prototypes. Exhibit 8 presents the results per square foot:

Exhibit 8: Total Nexus Costs Per Square Foot					
				Stacked	
	Affordability		Garden	Flat	Mixed-Use
Household Income Category	Gap	Townhome	Apartments	Apartments	Rental
Prototype Size (SF)		1,250 SF	860 SF	820 SF	750 SF
Up to 50% AMI	\$119,000	\$12	\$14	\$15	\$18
Greater than 50% but not exceeding 80% AMI	\$112,500	\$10	\$12	\$13	\$15
Total Nexus Costs (1)		\$22	\$26	\$28	\$32

The calculated fee levels indicated above are maximum fees supported by the nexus analysis. Establishing the appropriate fee level for the City is a policy matter that will be determined by the City Council.

# **Potential Fee Levels for Consideration**

When considering fee levels, there are several economic or real estate factors that may be taken into account in determining potential feel levels. A primary concern is that the fee levels not be so onerous that they significantly constrain the development of new rental units.

As discussed, the nexus analysis establishes the maximum supportable fee level from a legal nexus perspective. The KMA methodology employs a series of conservative assumptions designed to ensure that the analysis does not overstate the impact of residential housing construction on the demand for new affordable housing. KMA recommends that cities select a fee level that leaves a margin between the fee and the maximum established by the nexus analysis. This allows for minor changes to the many inputs, assumptions, and calculations employed in the nexus analysis while assuring that the adopted fee remains below the supported nexus amount.

In order to provide the City with a framework for setting fee levels, KMA considered three approaches: (1) the nexus supported fee amounts; (2) the funding level required for the City to implement affordable housing development off-site; and (3) the economic impact of incorporating affordable housing development on-site. Each of these approaches is briefly reviewed below.

Nexus Supported Fee Amounts - The nexus supported fee amounts represent the maximum supportable fee from a legal nexus perspective. As shown below, for the four development prototypes, the maximum supported fee for market-rate rental housing is estimated to range between \$22,000 and \$26,900 per unit, or \$22 to \$32 per SF. The average supported fee is \$23,900 per unit or \$27 per SF. The City is likely to adopt a single impact fee applicable to all market-rate rental housing development, regardless of product type. Therefore, as shown in Exhibit 9, the appropriate maximum fee level supported by the residential nexus analysis is the lowest of the four prototypes, or \$22,000 per unit or \$22 per SF.

	Exhibit 9: Maximum Nexus Supported Fee Amounts					
	Prototype 1	Prototype 2	Prototype 3	Prototype 4		
	Townhomes	Garden	Stacked Flat	Mixed-Use		
	Townhomes	Apartments	Rentals	Rentals		
Per Unit	\$26,900	\$22,000	\$22,600	\$24,100		
Per SF	\$22	\$26	\$28	\$32		

Average
\$23,900
\$27

• Funding Level Required for City to Develop 15% Affordable Housing Off-Site – This approach estimates the funds that the City would need to receive in order to develop affordable rental housing in a separate off-site location from a market-rate rental development. As noted previously, each low-income rental unit has an estimated financing gap of \$112,500. In other words, for the City to undertake development of the affordable housing units, it would need to collect \$112,500 per affordable rental unit required. This gap figure equates to \$16,875 per market-rate rental unit developed (15% times \$112,500). As shown in Exhibit 10, depending on the market-rate rental development prototype, this required funding level translates to a range from \$14 to \$23 per SF, or an average of \$19 per SF. If the City adopts fees below this level, it would not be able to keep pace with its goal of developing 15% affordable units off-site.

Exhibit 10: Funding Level Required for City to Develop 15%						
	Affordable Housing Off-Site					
	Prototype 1	Prototype 2	Prototype 3	Prototype 4		
	Townhomes	Garden	Stacked Flat	Mixed-Use		
	Townhomes	Apartments	Rentals	Rentals		
Per Unit	\$16,875	\$16,875	\$16,875	\$16,875		
Per SF	\$14	\$20	\$21	\$23		

Average
\$16,875
\$19

• Economic Impact of Incorporating 15% Affordable Housing On-Site — The economic impact to market-rate rental developments resulting from incorporation of 15% affordable housing on-site can be measured using each of the financial pro formas for the four prototypes evaluated in this study. As shown in Exhibit 11, KMA estimates this economic impact to range between \$16,300 and \$27,300 per unit, or \$18 to \$27 per SF. The average economic impact is \$21,600 per unit or \$21 per SF. These figures represent the economic burden previously absorbed by the marketplace under the City's Inclusionary Housing Ordinance prior to the Palmer decision. Notably, the economic impact figures vary more widely than the funding level requirements shown in Exhibit 10. The figures in Exhibit 11 assume that developers are building comparable product for both the market-rate and affordable rental units. The figures in Exhibit 10 assume that the City is building affordable rental units in a garden apartment configuration.

	Exhibit 11: Economic Impact of Incorporating 15% Affordable					
	Housing On-Site					
	Prototype 1	Prototype 2	Prototype 3	Prototype 4		
	Townhomes	Garden	Stacked Flat	Mixed-Use		
	Townhomes	Apartments	Rentals	Rentals		
Per Unit	\$24,500	\$16,300	\$18,300	\$27,300		
Per SF	\$20	\$18	\$20	\$27		

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Average
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\$21,600
\$21
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In view of the above approaches, KMA recommends that the City consider an impact fee that does not exceed \$20,000 per unit or \$20 per SF.

#### **Potential Indices for Fee Level Adjustment**

There are a number of potential indices that could be used to adjust fee levels in the future. Some objectives that could potentially be taken into consideration in selecting an appropriate index for the fee are as follows:

# Administrative Objectives

- Simple and easily administered
- Clear and objective, not subject to interpretation
- Tied to readily accessible and neutral third party published source

# Potential Policy Objectives

- Maintain ability to mitigate impacts/fund affordable housing over long-term
- Maintain consistent fee burden over long-term
- Respond to economic cycles: fee relief during economic downturn, increased fees with a strong economy

Exhibit 12 reviews a range of potential indices that could be used to adjust the fee in the future.

Exhibit 12: Potential Indices for Fee Level Adjustment					
Index	Concept / Description	Advantages	Disadvantages		
#1 Building Cost Index (BCI)	Fees go up or down based on building construction costs.  Published by Engineering News Record (ENR).  Available at national average and for 20 cities (not Carlsbad or San Diego; Los Angeles is nearest city available).	Very well established.  Consistent fee burden over time relative to construction costs.	May not trend with changes in non-construction development costs (land, other soft costs).  May not trend with cost to produce affordable units.  Only addresses cost side of the equation.		

Exhibit 12: Poter	Exhibit 12: Potential Indices for Fee Level Adjustment (cont'd.)					
#2 Construction Costs Index (CCI)	Also published by ENR and similar to Building Cost Indices but with different weighting of labor and material cost categories.	Same as above.	Same as above.			
#3 Consumer Price Index (CPI)	Published by the U.S. Bureau of Labor Statistics. Available for major metro areas including San Diego.  BLS publishes "producer price	Very well established.  Generally tracks with inflation.  Produced by neutral governmental agency.	May not trend with:  - Construction costs (consistent fee burden)  or  - Cost to produce affordable units (consistent ability to mitigate impacts)  Different indices for			
Bureau of Labor Statistics (BLS) Construction Indices	indices" for a long list of industries.	tied to specific types of construction.  Produced by neutral governmental agency.	different uses somewhat more complicated  Only addresses cost side of the equation			
#5 Housing Affordability Index	Metric tied to housing affordability.  Fees go up as housing becomes less affordable.  Based on what median household can afford versus median housing cost	Maintains consistent level of mitigation.  Revenue increase as cost to produce unit increases.	Would not maintain consistent fee burden.  Requires special calculation by the City of Carlsbad and not produced by a neutral third party.			

For purposes of simplicity, the City may want to consider an annual adjuster based on one of the readily available, third party indices listed above. However, the affordability gaps are a very large determinant of the overall nexus amounts. Indices such as #1 through #4 above only address the cost side of the affordability gap equation. Measures of affordability gap, on the other hand, typically require formulas using a variety of inputs and assumption that have to be determined each year.

KMA recommends that the City adopt a fee program which enables the City Manager to make the determination whether to implement the annual adjustment each year, up to the amount supported by the index that is ultimately selected by the City.

Regardless of the index used by the City, it is important that the indexed fee should remain under the ceilings established by the nexus analysis. It is difficult to predict exactly how the maximum fees supported will be affected by changes in the economy and the housing market. KMA also recommends that the City conduct a re-evaluation of the fee every five to eight years.

**APPENDIX I: RESIDENTIAL NEXUS ANALYSIS** 

#### INTRODUCTION AND OVERVIEW

Keyser Marston Associates (KMA) has prepared this residential nexus analysis for the City of Carlsbad (City) per a contractual agreement. This residential nexus analysis addresses market-rate residential rental projects and the various types of rental units that could be subject to the Inclusionary Housing Ordinance, and quantifies the linkages between new market-rate units and the demand for affordable housing generated by the residents of new units.

#### The Carlsbad Context and Purpose of Report

The purpose of Appendix I is to provide an overview of the analysis and a discussion of the findings of a residential nexus analysis conducted for the City of Carlsbad (City). The residential nexus analysis quantifies the linkages between new market-rate rental units and the demand for affordable housing. The conclusion of the nexus analysis reflects the maximum mitigation impact fee supported to offset affordable housing demand caused by the development of market-rate rental housing.

Recent court rulings have questioned whether a city can impose an inclusionary ordinance on a market-rate rental development (*Palmer/Sixth Street Properties v. City of Los Angeles* [Palmer]), and the legitimacy of affordable housing in-lieu fees (*Building Industry Association of Central California vs. City of Patterson* [Patterson]).

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The Patterson case invalidated in-lieu affordable housing fees if "no reasonable relationship" is found between the construction of market-rate housing and the need for affordable housing. As such, instead of establishing fees based on a city's citywide need for affordable housing, affordable housing impact fees must be rationally related to the impact caused by market-rate housing. The purpose of the nexus study is to analyze the nexus between new market-rate rental development and to calculate a nexus-based housing impact fee.

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# **The Nexus Concept**

The underlying nexus concept is that the newly constructed residential units represent new households in Carlsbad. These households represent new income in Carlsbad that will consume goods and services, either through purchases of goods and services or "consumption" of governmental services. New consumption translates to jobs; a portion of the jobs are at lower compensation levels; low compensation jobs generate new lower-income households that cannot afford market-rate units in Carlsbad and therefore need affordable housing.

#### **Use of This Study**

An impact analysis of this nature has been prepared for the limited purpose of determining nexus support for consideration of a rental housing impact fee. It has not been prepared as a document to guide policy design in the broader context.

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#### **Methodology and Models Used**

The methodology or analysis procedure for this nexus analysis starts with the rental rate of a new market-rate residential unit, and moves through a series of linkages to the gross income of the household that rented the unit, the disposable income of the new household, the annual expenditures on goods and services, the jobs associated with the purchases and delivery of services, the income of the workers doing those jobs, the household income of the workers and, ultimately, the affordability level of the housing needed by the worker households. The steps of the analysis from household income to jobs generated were performed using the IMPLAN model, a model widely used for over 30 years to quantify the impacts of changes in a local economy, including employment impacts from changes in personal income. From job generation by industry, KMA used its own jobs housing nexus model to quantify the income of worker households by affordability level.

To illustrate the linkages by looking at a simplified example, we can take an average household that rents a unit at a certain rent. From that rent, we estimate the gross income of the household and the disposable income of the household. The disposable income, on average, will be used to "purchase" or consume a range of goods and services, such as purchases at the supermarket or services at the bank. Purchases in the local economy in turn generate employment. The jobs generated are at different compensation levels. Some of the jobs are low paying and as a result, even when there is more than one worker in the household, there are some lower- and middle-income households who cannot afford market-rate housing in Carlsbad.

The IMPLAN model quantifies jobs generated at establishments that serve new residents directly (e.g., supermarkets, banks, or schools), jobs generated by increased demand at firms which service or supply these establishments, and jobs generated when the new employees spend their wages in the local economy and generate additional jobs. The IMPLAN model estimates the total impact combined.

#### **Net New Underlying Assumption**

An underlying assumption of the analysis is that households that rent new units represent net new households in Carlsbad. If renters have relocated from elsewhere in the City, vacancies have been created that will be filled. An adjustment to new construction of units would be

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warranted if Carlsbad were experiencing a significant level of demolitions or loss of existing housing inventory. However, the rate of housing unit removal is so low as to not warrant an adjustment or offset. The City estimates that 175 homes have been demolished in the past 10 years, many of which were removed to make way for new residences.

Since the analysis addresses net new households in Carlsbad and the impacts generated by their consumption expenditures, it quantifies net new demands for affordable units to accommodate new worker households. As such, the impact results do not address nor in any way include existing deficiencies in the supply of affordable housing.

# **Geographic Area of Impact**

The analysis quantifies impacts occurring within San Diego County. The IMPLAN model computes the jobs generated within the County and sorts out those that occur beyond the County boundaries. The results therefore slightly underestimate the total impact of new housing on the total need for affordable housing.

Job impacts, like most types of impacts, occur irrespective of political boundaries. And like other types of impact analyses, such as traffic, impacts beyond city boundaries are experienced, are relevant, and are important. See Addendum for further discussion.

#### Disclaimer

This report has been prepared using the best and most recent data available at the time of the analysis. Local data and sources were used wherever possible. Major sources include the U.S. Census Bureau: 2009-2011 American Community Survey, California Employment Development Department, and the IMPLAN model, which we believe are sufficiently accurate for the purposes of the analysis.

## A. MARKET-RATE UNITS AND GROSS HOUSEHOLD INCOME

This section describes the prototypical market-rate rental units and the income of the renter households assumed in KMA nexus analysis. Household income is the input to the IMPLAN model described in Section B of this report. These are the starting points of the chain of linkages that connect new market-rate rental units to incremental demand for affordable residential units.

This section provides a summary of the prototypes and household income. More description and supporting tables are provided in Appendix II.

# **Recent Housing Market Activity and Prototypical Units**

In identifying residential prototypes, KMA undertook a survey of residential rental units currently being marketed throughout the City. KMA accessed readily available data on apartment rents. Four rental prototypes were identified, representing projects currently being proposed, developed, or that have the potential for development in the foreseeable future.

Like much of San Diego County, Carlsbad experienced little development of rental apartments in recent years. As of this writing in 2013, conditions have already changed and rents are beginning to move in an upward direction while vacancies decline slightly. In short, the rental market is poised for strengthening to the extent that new construction is anticipated within the next two years.

For the purposes of the nexus analysis, the prototypes are as follows:

- A townhome unit in a project with an average density of 12 units to the acre. Unit sizes averages 1,250 SF, a mix of two and three bedroom units, renting for \$2,146 per month.
- A garden apartment unit in a project with an average density of 20 units per acre. Unit size averages 860 SF, a mix of one, two and three bedroom units, renting for \$1,770 per month.
- A stacked flat apartment unit in a project with an average density of 30 units per acre.
   Includes a mix of one and two bedroom units, averaging 820 SF, renting for \$1,805 per month.
- Mixed-use stacked flats over ground floor retail with an average density of 28 units per acre. Includes one and two bedroom units averaging 750 SF and 3,000 SF of retail space on the ground floor. Average market rent is estimated at \$1,927 per month for the residential component and \$2.50 per SF per month triple-net (NNN) for the commercial component.

Reference is made to the market survey material in Appendix II.

#### Summary

Exhibit 13 presents the prototypes tested in the nexus analysis:

Exhibit 13: Summary of Prototypes							
	Townhome	Garden Apartments	Stacked Flat Apartments	Mixed-Use Rental			
Average Unit Size	1,250 SF	860 SF	820 SF	750 SF			
Average No. of Bedrooms	2.5	1.8	1.6	1.5			
Average Rent	\$2,146	\$1,770	\$1,805	\$1,927			
Commercial Rent/SF				\$2.50			

# **Income of Housing Unit Renter**

The next step in the analysis is to determine the income of the renting households in the prototypical units. The gross household income of the renters is the input to the IMPLAN model.

The standard used by lending institutions and Federal, State, and local affordable housing programs for relating annual rent to household income is 30%. While leasing agents and landlords may permit rental payments to represent a slightly higher share of total income, 30% represents an average. This is based on the fact that renters are also likely to have other debt, and that many do not choose to spend more than 30% of their income on rent, since, unlike an ownership situation, the unit is not viewed as an investment with value enhancement potential. The resulting relationship is that annual household income is 3.3 times annual rent.

The estimated gross household incomes of renters of the prototype units are calculated in Appendix I - Tables A-1 through A-4, and summarized in Exhibit 14.

Exhibit 14: Household Income							
		Garden	Stacked Flat	Mixed-Use			
	Townhome	Apartments	Apartments	Rental			
Gross Household Income	\$86,000	\$70,700	\$72,300	\$77,000			

The nexus analysis is conducted on 100-unit building modules for ease of presentation, and to avoid fractions. Appendix I - Table A-5 summarizes the conclusions of this section and calculates the total gross household income for the 100-unit building modules. This is the input into the IMPLAN model.

# TABLE A-1 PROTOTYPE 1: RENTAL TOWNHOMES RENT TO INCOME RATIO

**RESIDENTIAL NEXUS ANALYSIS** 

**CITY OF CARLSBAD** 

			Prototype 1 Rental Townhomes
Market Rent Monthly Annual	\$1.72 /SF	1,250 SF	\$2,146 \$25,752
% of Income Spent on Rent (excludes utilities)			30%
Annual Household Income Required			\$86,000
Annual Rent to Income Ratio			3.3

# **TABLE A-2**

# PROTOTYPE 2: GARDEN APARTMENTS RENT TO INCOME RATIO RESIDENTIAL NEXUS ANALYSIS CITY OF CARLSBAD

			Prototype 2 Garden Apartments
Market Rent Monthly Annual	\$2.06 /SF	860 SF	\$1,770 \$21,240
% of Income Spent on Rent (excludes utilities)			30%
Annual Household Income Required			\$70,700
Annual Rent to Income Ratio			3.3

# **TABLE A-3**

# PROTOTYPE 3: STACKED FLAT RENTALS ANNUAL RENT TO INCOME RATIO RESIDENTIAL NEXUS ANALYSIS CITY OF CARLSBAD

			Prototype 3 Stacked Flat Rentals
Market Rent Monthly Annual	\$2.20 /SF	820 SF	\$1,805 \$21,660
% of Income Spent on Rent (excludes utilities)			30%
Annual Household Income Required			\$72,300
Annual Rent to Income Ratio			3.3

# **TABLE A-4**

# PROTOTYPE 4: MIXED-USE RENTAL ANNUAL RENT TO INCOME RATIO RESIDENTIAL NEXUS ANALYSIS CITY OF CARLSBAD

			Prototype 4 Mixed-Use Rental
Market Rent Monthly Annual	\$2.57 /SF	750 SF	\$1,927 \$23,124
% of Income Spent on Rent (excludes utilities)			30%
Annual Household Income Required			\$77,000
Annual Rent to Income Ratio			3.3

TABLE A-5

NEW MARKET-RATE RESIDENTIAL HOUSEHOLD SUMMARY RESIDENTIAL NEXUS ANALYSIS
CITY OF CARLSBAD

PROTOTYPE 1: RENTAL TOWNHOMES	Per Unit	Per Sq.Ft.	100-Unit Building Module
Units			100 Units
Building Sq.Ft. (net rentable area)	1,250		125,000
Rent	,		-,
Monthly	\$2,146	\$1.72 /SF	\$215,000
Annual	\$25,752	\$20.64 /SF	\$2,575,000
Rent to Income Ratio	3.3		3.3
Gross Household Income	\$86,000		\$8,600,000
PROTOTYPE 2: GARDEN APARTMENTS			
Units			100 Units
Building Sq.Ft. (net rentable area)	860		86,000
Rent			
Monthly Annual	\$1,770 \$21,240	\$2.06 /SF \$24.72 /SF	\$177,000
		\$24.72 /SF	\$2,124,000
Rent to Income Ratio  Gross Household Income	3.3		3.3 <b>\$7,070,000</b>
Gross Household Income	\$70,700		\$7,070,000
PROTOTYPE 3: STACKED FLAT RENTALS			
Units			100 Units
Building Sq.Ft. (net rentable area)	820		82,000
Rent	4	4	4
Monthly Annual	\$1,805 \$21,660	\$2.20 /SF \$26.40 /SF	\$181,000 \$2,166,000
Rent to Income Ratio	3.3	φ <b>2</b> 0.10 γ 3.	3.3
Gross Household Income	\$72,300		\$7,230,000
PROTOTYPE 4: MIXED-USE RENTAL	. ,		. , ,
Units			100 Units
Building Sq.Ft. (net rentable area)	750		75,000
Rent	750		73,000
Monthly	\$1,927	\$2.57 /SF	\$193,000
Annual	\$23,124	\$30.84 /SF	\$2,312,000
Rent to Income Ratio	3.3		3.3
Gross Household Income	\$77,000		\$7,700,000

Source: Tables A-1 through A-4.

#### B. THE IMPLAN MODEL

Consumer spending by residents of new housing units will create jobs, particularly in sectors such as restaurants, health care, and retail, which are closely connected to the expenditures of residents. The widely used economic analysis tool, IMPLAN (IMpact Analysis for PLANning), was used to quantify these new jobs by industry sector.

# **IMPLAN Model Description**

The IMPLAN model is an economic analysis software package now commercially available through the Minnesota IMPLAN Group. IMPLAN was originally developed by the U.S. Forest Service, the Federal Emergency Management Agency, and the U.S. Department of the Interior Bureau of Land Management and has been in use since the 1970s and refined over time. It has become a widely used tool for analyzing economic impacts from a broad range of applications from major construction projects to natural resource programs.

IMPLAN is based on an input-output accounting of commodity flows within an economy from producers to intermediate and final consumers. The model establishes a matrix of supply chain relationships between industries and also between households and the producers of household goods and services. Assumptions about the portion of inputs or supplies for a given industry likely to be met by local suppliers, and the portion supplied from outside the region or study area, are derived internally within the model using data on the industrial structure of the region.

The output or result of the model is generated by tracking changes in purchases for final use (final demand) as they filter through the supply chain. Industries that produce goods and services for final demand or consumption must purchase inputs from other producers, which in turn, purchase goods and services. The model tracks these relationships through the economy to the point where leakages from the region stop the cycle. This allows the user to identify how a change in demand for one industry will affect a list of over 400 other industry sectors. The projected response of an economy to a change in final demand can be viewed in terms of economic output, employment, or income.

Data sets are available for each county and state, so the model can be tailored to the specific economic conditions of the region being analyzed. This analysis utilizes the data set for San Diego County. As will be discussed, much of the employment impact is in local-serving sectors,

such as retail, eating and drinking establishments, and medical services. The employment impacts will extend throughout the County and beyond based on where jobs are located that serve Carlsbad residents.

# Application of the IMPLAN Model to Estimate Job Growth

The IMPLAN model was applied to link gross household income to household expenditures to job growth occurring in San Diego County. Employment generated by the household income of residents is analyzed in modules of 100 residential units to facilitate communication of the results and avoid fractions. The IMPLAN model first converts household income to disposable income by accounting for State and Federal income taxes, Social Security and Medicare (FICA) taxes, and personal savings. The model then distributes spending among various types of goods and services (industry sectors) based on data from the Consumer Expenditure Survey and the Bureau of Economic Analysis Benchmark input-output study, to estimate employment generated.

Job creation, driven by increased demand for products and services, was projected for each of the industries that will serve the new households. The employment generated by this new household spending is summarized in Exhibit 15.

Exhibit 15: Jobs Generated per 100 Units							
	_	Garden	Stacked Flat	Mixed-Use			
	Townhome	Apartments	Apartments	Rental			
Gross Household Income	\$86,000	\$70,700	\$72,300	\$77,000			
Total Jobs Generated, 100 units	64.3	53.1	54.3	57.5			

Appendix I - Table B-1 provides a detailed summary of employment generated by industry. The table shows industries sorted by projected employment. Expenditure patterns vary by income level, and the IMPLAN results are calculated according to the income bracket. In the case of the Carlsbad prototypes, garden apartment and stacked flat households are in one income category, and townhome and mixed-use rental households are in a second. Estimated employment is shown for each IMPLAN industry sector representing 1% or more of total employment. The jobs that are generated within the County are heavily in the retail industries, in restaurants and other eating establishments, and in industries that provide local services such as health care and real estate.

The jobs counted in the IMPLAN model cover all jobs, full and part time, similar to the U.S. Census and all reporting agencies (unless otherwise indicated).

TABLE B-1

IMPLAN MODEL OUTPUT
EMPLOYMENT GENERATED
RESIDENTIAL NEXUS ANALYSIS
CITY OF CARLSBAD

Per 100 Market Rate Units	PROTOTYPE 1: RENTAL TOWNHOMES	% of Jobs	PROTOTYPE 2: GARDEN APARTMENTS	PROTOTYPE 3: STACKED FLAT RENTALS	% of Jobs	PROTOTYPE 4: MIXED-USE RENTAL	% of Jobs
Page 1 of 2	TOWNHOMES	1003	APARTMENTS	KENTALS	Jobs	KENTAL	1003
• ,							
Gross Income of New Residents (in 100 Market Rate Units) <sup>1</sup>	\$8,600,000		\$7,070,000	\$7,230,000		\$7,700,000	
Employment Generated by Industry <sup>2</sup>							
Food services and drinking places	7.6	12%	6.2	6.4	12%	6.8	12%
Offices of physicians, dentists, and other health practitioners	4.2	6%	3.3	3.4	6%	3.7	6%
Real estate establishments	3.2	5%	2.9	3.0	5%	2.9	5%
Securities, commodity contracts, investments, and related activities	3.3	5%	2.5	2.5	5%	2.9	5%
Private hospitals	1.7	3%	1.9	1.9	4%	1.5	3%
Wholesale trade businesses	2.0	3%	1.7	1.7	3%	1.8	3%
Retail Stores - Food and beverage	2.4	4%	1.6	1.7	3%	2.2	4%
Nursing and residential care facilities	1.3	2%	1.6	1.6	3%	1.2	2%
Retail Stores - General merchandise	2.2	3%	1.5	1.5	3%	2.0	3%
Private household operations	1.9	3%	1.4	1.4	3%	1.7	3%
Nondepository credit intermediation and related activities	1.6	2%	1.3	1.4	3%	1.4	2%
Employment services	1.2	2%	1.0	1.0	2%	1.0	2%
Retail Stores - Motor vehicle and parts	1.4	2%	1.0	1.0	2%	1.3	2%
Retail Stores - Clothing and clothing accessories	1.4	2%	0.9	1.0	2%	1.2	2%
Individual and family services	0.9	1%	0.9	1.0	2%	0.8	1%
Other private educational services	0.7	1%	0.9	0.9	2%	0.6	1%
Retail Nonstores - Direct and electronic sales	1.2	2%	0.8	0.9	2%	1.1	2%
Civic, social, professional, and similar organizations	0.9	1%	0.8	0.9	2%	0.8	1%
Services to buildings and dwellings	0.9	1%	0.8	0.8	1%	0.8	1%
Retail Stores - Miscellaneous	1.1	2%	0.8	0.8	1%	1.0	2%
Private junior colleges, colleges, universities, and professional schools	0.8	1%	0.8	0.8	1%	0.7	1%

TABLE B-1

IMPLAN MODEL OUTPUT

EMPLOYMENT GENERATED

RESIDENTIAL NEXUS ANALYSIS

CITY OF CARLSBAD

Per 100 Market Rate Units	PROTOTYPE 1: RENTAL TOWNHOMES	% of Jobs	PROTOTYPE 2: GARDEN APARTMENTS	PROTOTYPE 3: STACKED FLAT RENTALS	% of Jobs	PROTOTYPE 4: MIXED-USE RENTAL	% of Jobs
Page 2 of 2		=			<del>-</del> "		<del>-</del> "
Legal services	0.8	1%	0.7	0.7	1%	0.7	1%
Personal care services	0.8	1%	0.7	0.7	1%	0.7	1%
Medical and diagnostic labs and outpatient and ambulatory care srvcs	0.9	1%	0.7	0.7	1%	0.8	1%
Monetary authorities and depository credit intermediation activities	0.7	1%	0.6	0.6	1%	0.6	1%
Automotive repair and maintenance, except car washes	0.7	1%	0.6	0.6	1%	0.6	1%
Retail Stores - Health and personal care	0.8	1%	0.6	0.6	1%	0.7	1%
Community food, housing, and other relief services, including rehab srvcs.	0.5	1%	0.5	0.5	1%	0.5	1%
All Other	17.0	26%	14.1	14.5	27%	15.2	26%
Total Employment Generated	64.3	100%	53.1	54.3	100%	57.5	100%

<sup>1</sup> The IMPLAN model tracks how increases in consumer spending creates jobs in the local economy. See Table A-5 for estimates of the gross income of residents of the prototypical 100 unit buildings. The model produces results by income category. For this analysis, there are two household income categories: \$75,000 - \$100,000 (townhomes and mixed-use rentals) and \$50,000 - \$75,000 (garden and stacked flat rentals). Expenditures patterns, and therefore, occupation distribution, varies by income category.

 $<sup>^{2}</sup>$  For Industries representing more than 1% of total employment for any of the two IMPLAN income categories (see note 1).

#### C. THE KMA JOBS HOUSING NEXUS MODEL

This section presents a summary of the analysis linking the employment growth associated with residential development, or the output of the IMPLAN model (see Section B), to the estimated number of lower-income housing units required in two income categories, for each of the four residential prototype units.

# **Analysis Approach and Framework**

The analysis approach is to examine the employment growth for industries related to consumer spending by residents in the 100-unit modules. Then, through a series of linkage steps, the number of employees is converted to households and housing units by affordability level. The findings are expressed in terms of numbers of affordable households per 100 market-rate units.

The analysis addresses the affordable unit demand associated with new market-rate rental housing units in Carlsbad. Exhibit 16 shows the 2012 San Diego County Area Median Income (AMI) limits for the two categories that were evaluated -- 50% AMI and 80% AMI -- as well as the County median for comparison purposes.

Exhibit 16: 2012 Income Limits for San Diego County (1)										
		Household Size (Persons)								
Household	Income Category	1	2	3	4	5	6			
Very low	Up to 50% AMI	\$28,150	\$32,150	\$36,150	\$40,150	\$43,400	\$46,600			
Low	Greater than 50% but not exceeding 80% AMI	\$45,000	\$51,400	\$57,850	\$64,250	\$69,400	\$74,550			
Median	100% AMI	\$53,150	\$60,700	\$68,300	\$75,900	\$81,950	\$88,050			

<sup>(1)</sup> The 2013 San Diego County Area Median Income limits were released as KMA was completing its analysis. Income limits were found to increase nominally between 2012 and 2013, approximately \$100-\$200.

The analysis is conducted using a model that KMA developed and has applied to similar evaluations in many other jurisdictions. The model inputs are all local data to the extent possible, and are fully documented in the following description.

#### **Analysis Steps**

Appendix I - Tables C-1 through C-3 at the end of this section present a summary of the nexus analysis steps for the prototype units. Following is a description of each step of the analysis.

#### Step 1 – Estimate of Total New Employees

Appendix I - Table C-1 commences with the total number of employees associated with the new market-rate units. The employees were estimated based on household expenditures of new residents using the IMPLAN model (see Section B).

# Step 2 – Adjustment from Employees to Employee Households

This step (Appendix I - Table C-1) converts the number of employees to the number of employee households, recognizing that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers is reduced. The workers-per-worker-household ratio eliminates from the equation all non-working households, such as retired persons, students, and those on public assistance. The County average of 1.72 workers per worker household (from the U. S. Census Bureau: 2009-2011 American Community Survey) is used for this step in the analysis. The number of jobs is divided by 1.72 to determine the number of worker households. (Average workers related to all households is a lower ratio because all households are counted in the denominator, not just worker households; using average workers per total households would produce greater demand for housing units.) The 1.72 ratio covers all workers, full and part time.

# Step 3 – Occupational Distribution of Employees

The occupational breakdown of employees is the first step to arrive at income level. The output from the IMPLAN model provides the number of employees by industry sector. The IMPLAN output is paired with data from the Department of Labor, Bureau of Labor Statistics, May 2011, Occupational Employment Survey (OES) to estimate the occupational composition of employees for each industry sector. Industry refers to the economic activity in which workers are primarily engaged, such as retail or manufacturing; occupation describes the jobs of the workers in the industry, such as sales clerks or managers in retail stores and machine operators and managers in manufacturing (each industry has its own distinct cross section of occupations or occupational mix).

Pairing of OES and IMPLAN data was accomplished by matching IMPLAN industry sector codes with the four-digit North American Industry Classification System Code (NAICS) used in the OES. Each IMPLAN industry sector is associated with one or more NAICS codes, with matching NAICS codes ranging from two to five digits. Employment for IMPLAN sectors with multiple matching NAICS codes was distributed among the matching codes based on the distribution of employment among those industries at the national level. Employment for IMPLAN sectors where matching NAICS codes were only at the two- or three-digit level of detail was distributed using a similar approach, among all of the corresponding four-digit NAICS codes falling under the broader two- or three-digit categories.

National-level employment totals for each industry within the OES were pro-rated to match the employment distribution projected using the IMPLAN model, which varies by income category. Occupational composition within each industry was held constant. The result is the estimated occupational mix of employees.

As shown on Appendix I - Table C-1, new jobs will be distributed across a variety of occupational categories. The three largest occupational categories are office and administrative support positions (19%), sales positions (15-17%), and food preparation and serving jobs (13%). Step 3 of Table C-1 indicates both the percentage of total employee households and the number of net new employee households by occupation associated with 100 new market-rate units.

#### Step 4 – Estimates of Employee Households Meeting the Lower Income Definitions

As shown on Step 4 of Appendix I - Table C-2, occupation is translated to income based on recent San Diego County wage and salary information from the California Employment Development Department. This step in the analysis calculates the number of employee households that fall into each income category for each household size.

Individual *employee* income data was used to calculate the number of *households* that fall into the income categories by assuming that multiple earner households are, on average, formed of individuals with similar incomes. KMA notes that there is potential for wide variation in the mix of earner incomes within a multiple earner household, such as situations where young adults are living at home with their parents. Overall, KMA has found that this assumption is a reasonable representation of the average situation.

Employee households not falling into one of the major occupation categories are assumed to have the same income distribution as the major occupation categories.

#### Step 5 – Estimate of Household Size Distribution

In this step, household size distribution was input into the model in order to estimate the income and household size combinations that meet the income definitions for San Diego County. The household size distribution utilized in the analysis is that of worker households in San Diego County derived using American Community Survey (ACS) data. The model employs a distribution of the number of workers per household by household size. For example, four-person worker households can have one, two, three, or four workers in the household. The model uses ACS data to develop a distribution of the number of the workers per worker household, by household size.

#### Step 6 – Estimate of Households that Meet Size and Income Criteria

For this step KMA built a cross-matrix of household size and income to establish probability factors for the two criteria in combination. For each occupational group a probability factor was calculated for each income level and household size/number of workers combination, and multiplied by the number of households. Appendix I - Tables C-2 and C-3 show the result after completing Steps 4, 5, and 6. The calculated number of households that meet the size and income criteria for the under 50% of AMI category generated by 100 market-rate prototype units are shown in Appendix I - Table C-2. The methodology was repeated for the 50% to 80% AMI income tier, as shown in Appendix I - Table C-3.

#### **Summary Findings**

Appendix I - Table C-4 presents the results of the analysis for the residential prototype units. The table estimates the number of households generated in each affordability category and the total number of households over 80% of AMI.

According to Appendix I - Table C-4, approximately 60% of new worker households generated by the expenditures of new residents have incomes below 80% of AMI, with approximately half of these households earning less than 50% of AMI. The finding that the jobs associated with consumer spending tend to be low-paying jobs where the workers will require housing affordable at the lower income levels is not surprising. As noted above, direct consumer spending results in employment that is concentrated in lower paid occupations including food preparation, administrative, and retail sales.

The findings in Appendix I - Table C-4 are summarized in Exhibit 17, which shows the total demand for affordable housing units associated with 100 market-rate units.

Exhibit 17: New Worker Households by Income Level per 100 Market-Rate Units							
Household	Income Category	Townhome	Garden Apartments	Stacked Flat Apartments	Mixed-Use Rental		
поизенова	<u> </u>	Townhome	Apartments	Apartments	Kentui		
Very low	Up to 50% AMI	12.4	10.1	10.3	11.1		
Low	Greater than 50% but not exceeding 80% AMI	10.8	8.9	9.1	9.7		
Total, Less than 80% AMI		23.2	19.0	19.4	20.8		
Greater than 80% AMI		14.2	11.9	12.2	12.7		
Total, New	Households	37.4	30.9	31.6	33.5		

#### **Comparison of Analysis Results to Inclusionary Program**

The analysis findings identify how many lower income households are generated for every 100 market-rate units. These findings are adjusted to percentages for purposes of comparison to inclusionary requirements. The percentages are calculated including both market-rate and affordable units (for example, 25 affordable units per 100 market-rate units translates to a project of 125 units; 25 affordable units out of 125 units equals 20%).

Exhibit 18 presents the results of the analysis, drawn from Appendix I - Table C-5, which contains greater detail. Each tier is cumulative, or inclusive of the tiers above.

Exhibit 18: Cumulative Inclusionary Percentage Supported by Nexus Analysis							
			Garden	Stacked Flat	Mixed-Use		
Household Income Category		Townhome	Apartments	Apartments	Rental		
Very low:	Up to 50% AMI	11.0%	9.2%	9.4%	10.0%		
Very low and Low	Greater than 50% but not exceeding 80% AMI	18.8%	16.0%	16.3%	17.2%		

The conclusion of the analysis is that the market-rate rental units analyzed support percentages up through lower income (up to 80% AMI) in the range of 16.0% to 18.8%. This range of impact in terms of demand for affordable housing exceeds the 15% requirement in the City's Inclusionary Housing ordinance applicable to new market-rate ownership housing (and previously applied to new market-rate rental housing as well).

TABLE C-1

NET NEW HOUSEHOLDS AND OCCUPATION DISTRIBUTION EMPLOYEE HOUSEHOLDS GENERATED RESIDENTIAL NEXUS ANALYSIS CITY OF CARLSBAD

	r		1	1
		PROTOTYPE 2:	PROTOTYPE 3:	
	PROTOTYPE 1: RENTAL	GARDEN	STACKED FLAT	PROTOTYPE 4:
	TOWNHOMES	APARTMENTS	RENTALS	MIXED-USE RENTAL
Step 1 - Employees <sup>1</sup>	64.3	53.1	54.3	57.5
Step 2 - Adjustment for Number of Households ( 1.72) <sup>2</sup>	37.4	30.9	31.6	33.5
Step 3 - Occupation Distribution				
Management Occupations	4.5%	4.6%	4.6%	4.5%
Business and Financial Operations	5.6%	5.6%	5.6%	5.6%
Computer and Mathematical	1.7%	1.7%	1.7%	1.7%
Architecture and Engineering	0.4%	0.5%	0.5%	0.4%
Life, Physical, and Social Science	0.3%	0.4%	0.4%	0.3%
Community and Social Services	1.4%	1.7%	1.7%	1.4%
Legal	0.9%	0.9%	0.9%	0.9%
Education, Training, and Library	2.3%	3.0%	3.0%	2.3%
Arts, Design, Entertainment, Sports, and Media	1.4%	1.5%	1.5%	1.4%
Healthcare Practitioners and Technical	6.4%	6.8%	6.8%	6.4%
Healthcare Support	3.6%	4.0%	4.0%	3.6%
Protective Service	0.9%	1.0%	1.0%	0.9%
Food Preparation and Serving Related	13.0%	12.9%	12.9%	13.0%
Building and Grounds Cleaning and Maint.	5.6%	5.5%	5.5%	5.6%
Personal Care and Service	3.9%	4.5%	4.5%	3.9%
Sales and Related	16.9%	15.0%	15.0%	16.9%
Office and Administrative Support	19.1%	18.8%	18.8%	19.1%
Farming, Fishing, and Forestry	0.1%	0.1%	0.1%	0.1%
Construction and Extraction	0.9%	0.9%	0.9%	0.9%
Installation, Maintenance, and Repair	4.1%	4.1%	4.1%	4.1%
Production	1.8%	1.7%	1.7%	1.8%
Transportation and Material Moving	<u>5.3%</u>	<u>5.1%</u>	<u>5.1%</u>	<u>5.3%</u>
Totals	100.0%	100.0%	100.0%	100.0%
Management Occupations	1.7	1.4	1.5	1.5
<b>Business and Financial Operations</b>	2.1	1.7	1.8	1.9
Computer and Mathematical	0.6	0.5	0.5	0.6
Architecture and Engineering	0.2	0.1	0.1	0.1
Life, Physical, and Social Science	0.1	0.1	0.1	0.1
Community and Social Services	0.5	0.5	0.5	0.5
Legal	0.3	0.3	0.3	0.3
Education, Training, and Library	0.9	0.9	0.9	0.8
Arts, Design, Entertainment, Sports, and Media	0.5	0.5	0.5	0.5
Healthcare Practitioners and Technical	2.4	2.1	2.1	2.1
Healthcare Support	1.3	1.3	1.3	1.2
Protective Service	0.4	0.3	0.3	0.3
Food Preparation and Serving Related	4.9	4.0	4.1	4.3
Building and Grounds Cleaning and Maint.	2.1	1.7	1.7	1.9
Personal Care and Service	1.5	1.4	1.4	1.3
Sales and Related	6.3	4.6	4.7	5.7
Office and Administrative Support	7.2	5.8	5.9	6.4
Farming, Fishing, and Forestry	0.0	0.0	0.0	0.0
Construction and Extraction	0.3	0.3	0.3	0.3
Installation, Maintenance, and Repair	1.5	1.3	1.3	1.4
Production	0.7	0.5	0.5	0.6
Transportation and Material Moving	<u>2.0</u>	<u>1.6</u>	<u>1.6</u>	<u>1.8</u>
Totals	37.4	30.9	31.6	33.5

<sup>&</sup>lt;sup>1</sup> Estimated employment generated by household expenditures within 100 prototypical market rate units. Employment estimates are based on the IMPLAN Group's economic model, IMPLAN, for San Diego County. Estimates vary by household income level. For this analysis, there are two household income categories: \$75,000 - \$100,000 (townhomes and mixed-use rentals) and \$50,000 - \$75,000 (garden and stacked flat rentals). Expenditures patterns, and therefore, occupation distribution, varies by income category.

<sup>&</sup>lt;sup>2</sup> Adjustment from number of workers to number of households based on ratio of 1.72 workers per worker household derived from the U.S. Census American Community Survey 2009 to 2011.

TABLE C-2 VERY LOW INCOME EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED RESIDENTIAL NEXUS ANALYSIS CITY OF CARLSBAD

#### Per 100 Market Rate Units

PROTOTYPE 1:	PROTOTYPE 2:	PROTOTYPE 3:	
RENTAL	GARDEN	STACKED FLAT	PROTOTYPE 4:
TOWNHOMES	APARTMENTS	RENTALS	MIXED-USE RENTAL

Step 4, 5, & 6 - Very Low Income Households (up to 50% AMI) within Major Occupation Categories

Management	0.01	0.00	0.00	0.00
Business and Financial Operations	0.03	0.02	0.03	0.03
Computer and Mathematical	-	-	-	-
Architecture and Engineering	-	-	-	-
Life, Physical and Social Science	-	-	-	-
Community and Social Services	-	-	-	-
Legal	-	-	-	-
Education Training and Library	0.18	0.19	0.20	0.16
Arts, Design, Entertainment, Sports, & Media	-	-	-	-
Healthcare Practitioners and Technical	0.02	0.02	0.02	0.02
Healthcare Support	0.51	0.50	0.51	0.46
Protective Service	-	-	-	-
Food Preparation and Serving Related	2.89	2.38	2.44	2.59
Building Grounds and Maintenance	1.03	0.84	0.86	0.92
Personal Care and Service	0.76	0.71	0.73	0.68
Sales and Related	2.57	1.85	1.89	2.30
Office and Admin	1.77	1.42	1.45	1.59
Farm, Fishing, and Forestry	-	-	-	-
Construction and Extraction	-	-	-	-
Installation Maintenance and Repair	0.23	0.20	0.20	0.21
Production	-	-	-	-
Transportation and Material Moving	0.75	0.61	0.62	0.67
Very Low Income Households - Major Occupations	10.76	8.75	8.94	9.63
Very Low Income Households <sup>1</sup> - all other occupations	1.62	1.35	1.38	1.45
Total Very Low Income Households <sup>1</sup>	12.37	10.10	10.33	11.08

Prepared by: Keyser Marston Associates, Inc. Filename: Carlsbad Nexus model\_v4\_08-04-13; C-2 Very Low Households; 9/6/2013; dd

 $<sup>^{1}\,\</sup>mathrm{Includes}$  households earning from zero through 50% of San Diego County Area Median Income.

TABLE C-3

LOW INCOME EMPLOYEE HOUSEHOLDS GENERATED RESIDENTIAL NEXUS ANALYSIS
CITY OF CARLSBAD

PROTOTYPE 1:	PROTOTYPE 2:	PROTOTYPE 3:	
RENTAL	GARDEN	STACKED FLAT	PROTOTYPE 4:
TOWNHOMES	APARTMENTS	RENTALS	MIXED-USE RENTAL

Step 4, 5, & 6 - Low Income Households (greater than 50% but not exceeding 80% AMI) within Major Occupation Categories

ow Income Households <sup>1</sup> - all other occupations	1.42	1.19	1.22	1.27
ow Income Households - Major Occupations	9.42	7.72	7.89	8.43
Transportation and Material Moving	0.67	0.54	0.55	0.60
Production	-	-	-	-
Installation Maintenance and Repair	0.47	0.39	0.40	0.42
Construction and Extraction	-	-	-	-
Farm, Fishing, and Forestry	-	-	-	-
Office and Admin	2.40	1.96	2.00	2.15
Sales and Related	1.99	1.46	1.50	1.78
Personal Care and Service	0.48	0.45	0.46	0.43
Building Grounds and Maintenance	0.68	0.56	0.57	0.61
Food Preparation and Serving Related	1.55	1.27	1.30	1.38
Protective Service	-	-	-	-
Healthcare Support	0.45	0.42	0.42	0.40
Healthcare Practitioners and Technical	0.15	0.14	0.14	0.13
Arts, Design, Entertainment, Sports, & Media	-	-	-	-
Education Training and Library	0.23	0.25	0.26	0.21
Legal	-	-	-	-
Community and Social Services	-	-	-	-
Life, Physical and Social Science	-	-	-	-
Architecture and Engineering	-	-	-	-
Computer and Mathematical	-	-	-	-
Business and Financial Operations	0.28	0.23	0.24	0.25
Management	0.08	0.06	0.06	0.07

 $<sup>^{1}</sup>$  Includes households earning greater than 50% but not exceeding 80% of San Diego County Area Median Income.

TABLE C-4

IMPACT ANALYSIS SUMMARY
EMPLOYEE HOUSEHOLDS GENERATED
RESIDENTIAL NEXUS ANALYSIS
CITY OF CARLSBAD

### RESIDENTIAL UNIT DEMAND IMPACTS PER 100 MARKET-RATE UNITS

Number of Ne	ew Households <sup>1</sup>	PROTOTYPE 1: RENTAL TOWNHOMES	PROTOTYPE 2: GARDEN APARTMENTS	PROTOTYPE 3: STACKED FLAT RENTALS	PROTOTYPE 4: MIXED-USE RENTAL
Very Low:	Up to 50% Area Median Income	12.4	10.1	10.3	11.1
Low:	Greater than 50% but not exceeding 80% Area Median Income	10.8	8.9	9.1	9.7
	Subtotal through 80% of Median	23.2	19.0	19.4	20.8
	Over 80% Area Median Income	14.2	11.9	12.2	12.7
	Total Employee Households	37.4	30.9	31.6	33.5
Percent of Ne	w Households <sup>1</sup>				
Very Low:	Up to 50% Area Median Income	33%	33%	33%	33%
Low:	Greater than 50% but not exceeding 80% Area Median Income	29%	29%	29%	29%
	Subtotal through 80% of Median	62%	61%	61%	62%
	Over 80% Area Median Income	38%	39%	39%	38%
	Total Employee Households	100%	100%	100%	100%

 $<sup>^{1}\,</sup>$  Households of retail, education, health care, and other workers that serve residents of new market-rate units.

TABLE C-5

INCLUSIONARY REQUIREMENT SUPPORTED
RESIDENTIAL NEXUS ANALYSIS
CITY OF CARLSBAD

#### SUPPORTED INCLUSIONARY REQUIREMENT

Supported Inclusionary Requirement	PROTOTYPE 1: RENTAL TOWNHOMES	PROTOTYPE 2: GARDEN APARTMENTS	PROTOTYPE 3: STACKED FLAT RENTALS	PROTOTYPE 4: MIXED-USE RENTAL
Supported inclusionary Requirement				
Per 100 Market Rate Units - Cumulative Through <sup>1</sup>				
50% OF MEDIAN INCOME	12.4 Units	10.1 Units	10.3 Units	11.1 Units
3070 OF THEBITAL INCOME	12.1 01110	10.1 011113	10.5 0111.5	11.1 0111.5
80% OF MEDIAN INCOME	23.2 Units	19.0 Units	19.4 Units	20.8 Units
80% OF WILDIAN INCOME	23.2 011103	15.0 011113	15.4 011165	20.6 011113
Supported Inclusionary Percentage - Cumulative Through <sup>2</sup>				
, , ,				
50% OF MEDIAN INCOME	11.0%	9.2%	9.4%	10.0%
33/3 323	22.070	3.270	5.170	20.070
80% OF MEDIAN INCOME	18.8%	16.0%	16.3%	17.2%
00/0 OF WILDIAM INCOME	10.0%	10.0%	10.5%	17.270

<sup>&</sup>lt;sup>1</sup>See Table C-4

<sup>&</sup>lt;sup>2</sup> Calculated by dividing the supported number of affordable units by the total number of units (supported affordable units + 100 market-rate units).

#### D. MITIGATION COSTS

This section takes the conclusions of the previous section on the number of households in the Very low and Low-income categories associated with the market-rate rental units and identifies the total cost of assistance required to make housing affordable. This section puts a cost on the units for each income level to produce the "total nexus cost."

A key component of the analysis is the size of the gap between what households can afford and the cost of producing new housing in Carlsbad, known as the 'affordability gap.' Affordability gaps are calculated for each of the categories of Area Median Income (AMI): households earning up to 50% of AMI (Verylowincome households), and between 50% and 80% of AMI (Low- income households). A detailed description of the calculation of affordability gaps is contained in Appendix II. A brief summary is included below.

#### **Project Descriptions**

In order to determine the affordability gap, there is a need to match a household at each income level with a unit type and size according to government regulations and policies. The underlying concept is that the City will use rental housing impact fee revenues to assist in the provision of affordable units to mitigate the impacts of market-rate rental housing. The analysis assumes that housing for Very low- and Low-income households will be provided in garden apartments, the least expensive units. The prototypical affordable housing garden apartment project is designed to represent what the City is most likely to assist in the future.

A detailed description of the affordable housing development prototype, including development costs, affordable values, and the affordability gap calculations, can be found in the tables at the end of this section. A brief overview is presented here.

Garden-style apartments are assumed to be wood-frame construction, built at a density of 25 units to the acre, with one, two, and three-bedroom units, averaging 826-SF. Parking is provided at 1.5 spaces for the one bedroom units, 2.0 spaces per unit for the two and three bedroom units, and 0.25 spaces per unit for visitors.

For Very low-income households (households earning up to 50% AMI), rents are set at 30% of 50% of Area Median Income. For Low-income households (households earning up to 80% AMI), maximum rents are calculated at 30% of 70% of Area Median Income. These are standards

widely used in affordable housing analysis and are consistent with current City policy. These are also conservative assumptions, which produce a lower affordability gap than reality since not all households have income at or near the top end of the range.

#### **Development Costs**

The cost of developing new residential units in Carlsbad was assembled from a number of sources. Land costs were gathered from recent land sale data collected by KMA. KMA is also actively working on a number of multi-family projects at various locations in the San Diego area and has recent developer pro forma financial analyses from which to draw cost information.

From the above sources, KMA prepared a summary of total development costs, broken down into the major cost components: acquisition, direct or construction costs, indirect costs, and financing costs. Housing development costs are intended as averages and generally reflect the reductions in construction costs experienced since the peak of the real estate market in the 2005-2007 timeframe.

#### **Affordability Gap**

The KMA financial pro forma estimating the affordability gap for a garden style apartment is presented in Appendix II Tables B-1 through B-5. The pro forma contains:

- i. A project description;
- ii. Estimates of development costs;
- iii. Stabilized net operating income based on maximum rents at 70% AMI and 50% AMI;
- iv. Estimates of maximum warranted investment; and
- v. The resulting financing gap generated reflective of the difference between warranted investment and development costs.

The inputs and assumptions used in the KMA pro formas are based on KMA's experience with comparable developments throughout San Diego County. In particular, KMA notes the following:

- The cost estimates do not assume a prevailing wage requirement.
- The KMA pro forma assumed land costs of \$30 per square foot of land, reflecting project location and achievable density.
- As specific sites have not been defined for this study, KMA assumed an allowance for offsite improvements at \$3 per SF of site area, and an allowance for on-site improvements at \$10 per SF of site area.
- The Very low income units (for households earning up to 50% AMI) are assumed to be financed with Low Income Housing Tax Credits and tax-exempt bond financing. The Low-income units (for households earning up to 80% AMI) are assumed to be financed using conventional debt and equity financing sources.

Exhibit 19 provides a summary of the affordability gaps used in the analysis:

Exhibit 19: Affordability Gap Per Unit - Garden Apartments				
Very low-income	Low-income			
(\$119,000)	(\$112,500)			

#### **E. TOTAL NEXUS COSTS**

The last step in the nexus analysis marries the findings on the numbers of households in each of the lower income ranges associated with the four prototypes to the affordability gaps, or the costs of delivering rental housing to them in Carlsbad.

Appendix I - Table E-1 summarizes the analysis. The affordability gaps are drawn from the prior discussion. The "nexus cost per market-rate unit" shows the results of the following calculation: the affordability gap times the number of affordable units demanded per market-rate rental unit. (Demand for affordable units for each of the income ranges is drawn from Table C-5 in the previous section and is adjusted to a per-unit basis from the 100-unit building module.)

The total nexus costs for the four prototypes are presented in Exhibit 20:

Exhibit 20: Maximum Supported Fee Level Per Market-Rate Unit							
		Affordability		Garden	Stacked Flat	Mixed-Use	
Household	d Income Category	Gap	Townhome	Apartments	Apartments	Rental	
Very low	Up to 50% AMI	\$119,000	\$14,700	\$12,000	\$12,300	\$13,200	
Low	Greater than 50% but not exceeding 80% AMI	\$112,500	\$12,200	\$10,000	\$10,300	\$10,900	
Maximum Level	Supported Fee		\$26,900	\$22,000	\$22,600	\$24,100	

These costs express the total nexus costs for the four prototype developments in the City of Carlsbad. These total nexus costs represent the ceiling for any requirement placed on market-rate development. The totals are not recommended levels for fees; they represent only the maximums established by this analysis, below which fees may be set.

The total nexus costs indicated above may also be expressed on a per-square-foot level. The square foot area of the prototype unit used throughout the analysis becomes the basis for the calculation. Again, see Appendix II for more discussion of the prototypes. Exhibit 21 provides the results per square foot:

		Affordability		Garden	Stacked Flat	Mixed-Use
Household	d Income Category	Gap	Townhome	Apartments	Apartments	Rental
Prototype	e Size (SF)		1,250 SF	860 SF	820 SF	750 SF
Very low	Up to 50% AMI	\$119,000	\$12	\$14	\$15	\$18
Low	Greater than 50% but not exceeding 80% AMI	\$112,500	\$10	\$12	\$13	\$15
Total Ne	xus Costs		\$22	\$26	\$28	\$32

<sup>(1)</sup> Allow for rounding error.

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TABLE E-1

### SUPPORTED FEE / NEXUS SUMMARY PER UNIT RESIDENTIAL NEXUS ANALYSIS CITY OF CARLSBAD

#### TOTAL NEXUS COST PER MARKET RATE UNIT

			Nexus Cost Per Market Rate Unit				
		Affordability Gap <sup>1</sup>	PROTOTYPE 1: RENTAL TOWNHOMES	PROTOTYPE 2: GARDEN APARTMENTS	PROTOTYPE 3: STACKED FLAT RENTALS	PROTOTYPE 4: MIXED-USE RENTAL	
Household Income Level							
Very Low:	Up to 50% Area Median Income	\$119,000	\$14,700	\$12,000	\$12,300	\$13,200	
Low:	Greater than 50% but not exceeding 80% Area Median Income	\$112,500	\$12,200	\$10,000	\$10,300	\$10,900	
	Total Supported Fee / Nexus		\$26,900	\$22,000	\$22,600	\$24,100	

#### TOTAL NEXUS COST PER SOLIARE FOOT

TOTAL NEXUS C	OST PER SQUARE FOOT						
			Nexus Cost Per Square Foot				
		Affordability Gap <sup>1</sup>	PROTOTYPE 1: RENTAL TOWNHOMES	PROTOTYPE 2: GARDEN APARTMENTS	PROTOTYPE 3: STACKED FLAT RENTALS	PROTOTYPE 4: MIXED-USE RENTAL	
	Unit Size (SF)		1,250 SF	860 SF	820 SF	750 SF	
Household Inco	me Level						
Very Low:	Up to 50% Area Median Income	\$119,000	\$11.76	\$13.95	\$15.00	\$17.60	
Low:	Greater than 50% but not exceeding 80% Area Median Income	\$112,500	\$9.76	\$11.63	\$12.56	\$14.53	
	Total Supported Fee / Nexus		\$21.52	\$25.58	\$27.56	\$32.13	

 $<sup>^{\</sup>mathrm{1}}$  Household earning less than 80% of Area Median Income are presumed to receive assistance for rental housing.

ADDENDUM: NOTES ON SPECIFIC ASSUMPTIONS

**Geographic Area of Impact** 

The analysis quantifies impacts occurring within San Diego County. The IMPLAN model computes the jobs generated within the County and sorts out those that occur beyond the County boundaries.

Job impacts, like most types of impacts, occur irrespective of political boundaries. And like other types of impact analyses, such as traffic, impacts beyond city boundaries are experienced, are relevant, and are important. Without an area-wide program to mitigate affordable housing impacts of all development, Carlsbad can ensure that those affordable housing impacts created by development within its jurisdiction are at least partially mitigated.

Economic impact analyses are often conducted to demonstrate the jobs and dollar costs and benefits of major projects, such as, say, a sports stadium or the closing of a military base. It is standard practice in economic impact analyses to identify the geographic area or areas for which the impacts are being computed. In this case, the job impacts within San Diego County are quantified and where the job holders (or worker households) live is not identified but would be within commuting distance to San Diego County. Whether a jurisdiction chooses to mitigate none, all, or a share of the impacts of its actions or activities is a matter of policy.

For clarification, counting all impacts associated with new rental housing units does not result in double counting, even if all jurisdictions were to adopt similar programs and charge affordable housing fees. The impact of a new housing unit is only counted once, in the jurisdiction in which it occurs. Obviously, within a metropolitan region, there is much commuting among jurisdictions, and cities house each others' workers in a very complex web of relationships. The important point is that impacts of residential rental development are only counted once. For jurisdictions that have housing programs on both residential and non-residential development, such as San Diego, KMA provides an analysis to demonstrate that double counting has not occurred. However, Carlsbad does not charge a commercial linkage fee to non-residential development.

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#### **Affordability Gaps**

The use of the affordability gap for establishing a maximum fee supported from the nexus analysis is grounded in the concept that affordable units will be built to mitigate impacts. The nexus analysis has established that units will be needed at one or more different affordability levels and, per local policy, the type of unit to be delivered depends on the income/affordability level. Most commonly, Very low- and Low-income households are assumed accommodated in rental units.

The rental units assisted by the public sector for affordable households are usually small in square foot area (for the number of bedrooms) and modest in finishes and amenities. As a result, in some communities these units are similar in physical configuration to what the market is delivering at market-rate; in other communities (particularly very high income communities), they may be smaller and more modest than what the market is delivering. Parking, for example, is usually the minimum permitted by the code. In some communities where there is a wide range in land cost per acre or per unit, it may be assumed that affordable units are built on land parcels in the lower portion of the cost range. KMA tries to develop a total development cost summary that represents the lower half of the average range, but not so low as to be unrealistic.

If the affordability gap is the difference between total development cost and sources of funds, the question sometimes arises as to how total development cost is defined. KMA defines total development costs as including land costs, construction costs, site improvements, architectural and engineering, financing and all other indirect costs, and an allowance for an industry profit (non-profit developers receive a development fee instead).

Non-profit developers usually experience the same land and construction costs but do have differences in their financing costs, other indirect expenses, and fee structures. The end result, on average, is a total cost that is comparable to that experienced by for-profit developers. No prevailing wage requirement is assumed for either case. It is sometimes thought that the cost structure for non-profits is higher than for for-profit developers; for purposes of an affordability gap average, we take the position that costs are essentially the same.

Development of market-rate rental units has been constrained for a number of years now in many California cities. However, current market rent levels in Carlsbad are strong enough to cover the costs of new development. As a result, total development cost summaries for rental units are drawn from current construction costs and the full complement of indirect costs that would be necessary to build an apartment structure. Affordability gaps are the difference between the value of the unit at restricted or affordable rent levels and the development costs.

#### **Excess Capacity of Labor Force**

At the time this analysis has been conducted, the national, regional, and local economy are all experiencing a slow recovery from a severe recession. Unemployment in California averages just under 10%. In this context, the question has been raised as to whether there is excess capacity in the labor force to the extent that consumption impacts generated by new households will be, in part, absorbed by existing jobs and workers, thus resulting in fewer net new jobs.

In response, an impact analysis of this nature is a one-time impact requirement to address impacts generated over the life of the project. The current economic downturn is a temporary condition; a healthy economy will return and the impacts will be experienced.

Additionally, the economic cycle self adjusts. Development of new residential units is not likely to occur until conditions improve or there is confidence that improved conditions are imminent. When this occurs, the improved economic condition of the households in the local area will absorb the current underutilized capacity of existing workers, employed and unemployed. By the time new units become occupied, current conditions will have likely improved.

#### The Burden of Paying for Affordable Housing

The City's housing programs, including the existing inclusionary program and proposed impact fee, do not place all burdens for the creation of affordable housing on new residential construction. The burden of affordable housing is borne by many sectors of the economy and society. A most important source in recent years of funding for affordable housing development comes from the Federal government in the form of tax credits (which result in reduced income tax payment by tax credit investors in exchange for equity funding).

Additionally there are other Federal grant and loan programs administered by the Department of Housing and Urban Development and other Federal agencies. The State of California also plays a major role with a number of special financing and funding programs. Much of the State money is funded by voter-approved bond measures paid for by all Californians.

Local governments have increasingly played a greater role in affordable housing. In addition, private sector lenders play an important role. Then there is the non-profit sector, both sponsors and developers that build much of the affordable housing.

To date the City has assisted in the production of 2,091 affordable units, including 1,840 units produced as a result of the City's inclusionary housing requirements. The City has collected approximately \$7.65 million in inclusionary fees since 1995 and has committed a total of \$19.8 million in financial assistance toward the inclusionary units produced.

In summary, all levels of government and many private parties, for-profit and non-profit, contribute to supplying affordable housing. Developers of market-rate rental housing are not being asked to bear the burden alone any more than they are assumed to be the only source of demand or cause for needing affordable housing in our communities. The City's adopted Housing Element projected new construction of affordable housing to meet the City's Regional Housing Needs Allocation. Of the City's need for over 3,000 Very low- and Low- income units, only 600 were projected to be developed through the inclusionary affordable housing program. Taken in combination, the City's inclusionary program and proposed impact fee program will result in the construction of or fund only a small percentage of the affordable housing needed in the City of Carlsbad.

APPENDIX II:	RESIDENTIAL VALUES – MARKET AND AFFORDABL

#### INTRODUCTION AND OVERVIEW

This appendix section provides the building blocks for the values used in other sections of this report, by establishing both market values and affordable values for various types of residential units or projects potentially developed in the City of Carlsbad.

Market values are based on surveys of residential units or developments in the City of Carlsbad covering a range of residential types. Affordable values are formula-based, starting from the San Diego County Area Median Income and amounts "affordable" for housing per State and local policies. The difference between market and affordable values for any given residential unit type, assuming a fixed unit size and occupying household, is referred to as the affordability gap. The affordability gaps play a major role in the calculation of the maximum supportable fee based on this nexus study.

#### A. MARKET VALUES

#### **Market Surveys and Timing Issues**

The surveys summarized in Appendix II Table A-1 were conducted in Fall 2012. As of the time of this writing, there remains uncertainty about how fast the housing recovery will occur, although it is likely that a return to the peak values of a few years ago will still take several years.

San Diego has experienced increased development of rental apartments in recent years. In 2008 and 2009, San Diego experienced a slight decline in rent levels and a slight increase in vacancy rates. As of this writing in early 2013, conditions have already changed and rents are beginning to move in an upward direction while vacancies are experiencing a slight uptick due to increased development. Vacancy levels never did exceed 5% even in the worst months in the San Diego region. In short, the rental market is poised for strengthening to the extent that new construction is anticipated within the next two years. In fact, some developers are preparing to enter the market with minimum initial returns but with an anticipation of better returns in the future.

#### **Market Value Conclusions**

The market value conclusions, based on all the surveys and indices, for analysis and program - design purposes are presented in Appendix II - Tables A-2 through A-15 and are as follows:

- A townhome unit, built at an average density of 12 units to the acre. Includes a mix of two
  and three bedrooms, averaging 1,250 square feet (SF) renting for \$2,146.
- A garden apartment unit in a project with an average density of 20 units per acre. Includes one, two, and three bedroom units averaging 860 SF. Market rent is estimated at \$1,770 per month.
- A stacked flat apartment unit in a project with an average density of 30 units per acre. Includes a mix of one and two bedroom units, averaging 820 SF, renting for \$1,805 per month.
- Mixed-use stacked flats over ground floor retail with an average density of 28 units per acre. Includes one and two bedroom units averaging 750 SF and 3,000 SF of retail space on the ground floor. Average market rent is estimated at \$1,927 per month for the residential component and \$2.50 per SF per month triple-net (NNN) for the commercial component.

The rent required for the rental projects represents the upper end of current rent levels in the City of Carlsbad (see Appendix II Table A-1). Based on our analysis, rents will have to approximate the level used in this analysis for new construction (without government assistance) to be feasible.

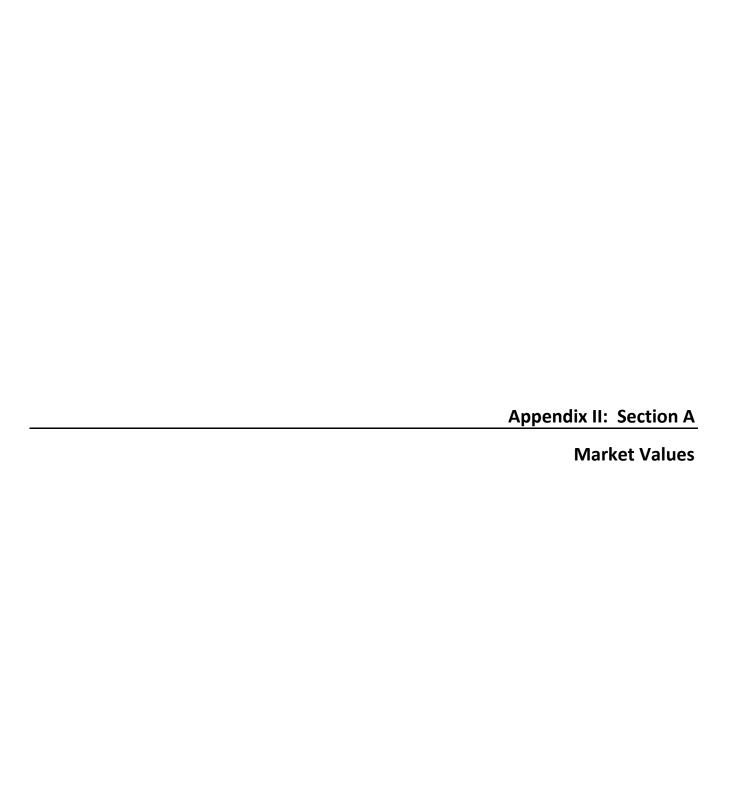


TABLE A-1

SURVEY OF RENTAL APARTMENT DEVELOPMENTS, CARLSBAD (1)

AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY

CITY OF CARLSBAD

	Weigh	ited Avera	ges		Ranges			Vacancy
Development/Owner	Rent	SF	\$/SF	Rent	SF	\$/SF	Units	Rate
Adams Street Apartments	\$1,193	762	\$1.57	\$1,125	670	\$1.49	74	0.0%
Oakley Parker				\$1,250	840	\$1.68		
Alicante Views	\$1,749	1,042	\$1.68	\$1,695	985	\$1.59	74	1.4%
Turf Club View Limited				\$1,895	1,195	\$1.72		
Archstone Pacific View (2)	\$1,910	943	\$2.02	\$1,583	662	\$1.49	451	4.2%
Archstone Communities				\$2,185	1,378	\$2.39		
Archstone Seascape	\$1,672	817	\$2.05	\$1,535	670	\$1.89	208	4.8%
Archstone Communities				\$1,792	950	\$2.29		
Beach Point Apartments	\$1,473	705	\$2.09	\$1,175	550	\$1.68	44	4.5%
Mark Gosselin				\$1,595	950	\$2.20		
Carlsbad Coast	\$1,556	744	\$2.09	\$1,128	412	\$1.96	72	2.8%
G.W. Williams				\$1,698	868	\$2.74		
Chinquapin Landing	\$1,625	1,165	\$1.39	\$1,625	1,165	\$1.39	25	0.0%
Moneda Corporation		•	•	\$1,625	1,165	\$1.39		
Dolphin Beach Apartments	\$1,825	1,200	\$1.52	\$1,825	1,200	\$1.52	40	0.0%
Jeff Hermanson		•	•	\$1,825	1,200	\$1.52		
Flower Fields	\$1,722	1,013	\$1.70	\$1,532	668	\$1.63	132	0.8%
Jerry Elder	. ,	,	,	\$1,750	1,074	\$2.29		
Marbella (2)	\$1,905	957	\$1.99	\$1,665	667	\$1.83	143	6.3%
Irvine Apartment Communities	, ,		,	\$2,325	1,240	\$2.50		
Park Place - Carlsbad	\$1,591	976	\$1.63	\$995	950	\$1.05	44	6.8%
Dwight Spiers	+ =/		7 = 100	\$1,610	1,100	\$1.65		
Ridgeview Condos	\$1,467	1,103	\$1.33	\$1,450	1,085	\$1.28	69	0.0%
Edward Boseker	, , ,	,	,	\$1,650	1,292	\$1.34		
Rising Glen Apartments	\$1,594	875	\$1.82	\$1,465	678	\$1.68	195	3.1%
R & V Management	+ =/		7	\$2,125	1,182	\$2.16		
Santa Fe Ranch (2)	\$1,467	858	\$1.71	\$1,428	679	\$1.55	320	3.1%
Unknown	<del>+ -/ · · ·</del>		<b>7</b>	\$1,607	924	\$2.10		0.2,0
Seagate Village Condominiums	\$1,770	1,103	\$1.60	\$1,745	1,084	\$1.55	272	1.1%
H.G. Fenton	<del>+ -/</del>	_,	7	\$2,050	1,145	\$1.87		
Sommerset La Costa	\$1,725	1,100	\$1.57	\$1,725	1,100	\$1.57	48	2.1%
Silverado Canyon Partners	7-7:	_,	7	\$1,725	1,100	\$1.57		,
The Arbors - Carlsbad	\$1,683	1,080	\$1.56	\$1,400	640	\$1.27	58	0.0%
Unknown	+ =/	_,	7	\$1,900	1,500	\$2.19		0.0,0
The Tradition Apartment Homes (2)	\$2,142	1,277	\$1.68	\$2,040	1,123	\$1.59	157	3.8%
Manzanita Partners	, ,	,		\$2,385	1,380	\$1.82		
The Village Apartments	\$1,555	800	\$1.94	\$1,555	800	\$1.94	98	0.0%
Village Properties	, ,		, -	\$1,555	800	\$1.94		
The Villas at Carlsbad	\$1,611	885	\$1.82	\$1,311	500	\$1.57	102	6.9%
United Dominion Realty Trust	Ψ±)0±±	000	Ψ1.0 <b>2</b>	\$2,305	1,300	\$2.62	102	0.570
Villa Real Apartments	\$1,096	570	\$1.92	\$995	450	\$1.76	163	0.0%
Helix Associates/Mildred McKerney	Ŷ±,000	5.5	, <b></b>	\$1,180	670	\$2.21		2.070
Villas La Costa	\$1,432	1,053	\$1.36	\$1,395	1,050	\$1.32	24	4.2%
TNT Gibralter Ltd./Barbara Ahlers	Ÿ-,	_,000	,	\$1,450	1,060	\$1.38		=,0
Waterstone	\$1,254	754	\$1.66	\$990	400	\$1.52	450	3.8%
FPI Holdings	Ÿ-, ·		7 = . 0 0	\$1,315	846	\$2.48	.55	2.070
Windsor at Aviara	\$1,725	893	\$1.93	\$1,410	625	\$1.55	288	5.2%
Blackrock	Ÿ-J3	555	T = .00	\$2,395	1,546	\$2.26		
Carlsbad	\$1,621	908	\$1.80	\$990	400	\$1.05	3,551	3.2%
Curismuu	71,021	300	71.0U	\$2,395		\$1.05 \$2.74	3,331	J. Z /0
CAN DIEGO COUNTY TOTALS	\$1,376	070	Ć1 F0		1,546	\$0.74	124,851	A F0/
SAN DIEGO COUNTY TOTALS	\$1,376	870	\$1.58	\$530 \$5.100	180		124,851	4.5%
				\$5,100	3,400	\$4.07		

<sup>(1)</sup> As of September 2012.

Source: MarketPointe Realty Advisors Prepared by: Keyser Marston Associates, Inc.

Filename: i: Carlsbad\_Nexus Study\_ Prototypes\_v7\_08-04-13;9/6/2013;rks

<sup>(2)</sup> Excludes affordable units.

# Market-Rate Prototypes Townhomes

Affordable Housing Impact Fee Nexus Study City of Carlsbad TABLE A-2 TOWNHOMES

## PROJECT DESCRIPTION AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

I. Site Area	12.00 Acres

#### II. Gross Building Area

Residential Area	180,000 SF	
Common Area	<u>0</u> SF	100%
Total Gross Building Area (GBA)	180,000 SF	<u>0%</u>
		100%

III.	Unit Mix	# of Units	<u>Unit Size</u>
	One Bedroom	0 Units	0% -
	Two Bedroom	72 Units 5	0% 1,100 SF
	Three Bedroom	<u>72</u> Units <u>5</u>	<u>0%</u> <u>1,400</u> SF
	Total	144 Units 10	0% 1,250 SF

IV. Number of Stories 2 Stories

V. Density 12.0 Units/Acre

VI. Construction Type Type V

#### VII. Parking

Parking Type	Attached Garage
--------------	-----------------

**Number of Spaces** 

Two and Three Bedroom2.0 Spaces/Unit288 SpacesVisitor0.25 Spaces/Unit36 SpacesTotal Spaces324 Spaces

TABLE A-3 TOWNHOMES

## ESTIMATED DEVELOPMENT COSTS AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

I. Acquisition Costs	<u>Totals</u>	Per Unit	<u>Notes</u>
i. Acquisition costs	\$13,068,000	\$90,800	\$25 Per SF Site
II. Direct Costs (1)			·
Off-Site Improvements (2)	\$1,045,000	\$7,300	\$2 Per SF Site
On-Site Improvements/Landscaping	\$4,182,000	\$29,000	\$8 Per SF Site
Parking	\$0	\$0	Included above
Shell Construction	\$16,200,000	\$112,500	\$90 Per SF GBA - Res.
Amenities/FF&E	\$100,000	\$700	Allowance
Contingency	\$1,076,000	<u>\$7,500</u>	5.0% of Directs
Total Direct Costs	\$22,603,000	\$157,000	\$126 Per SF GBA
III. Indirect Costs			
Architecture & Engineering	\$904,000	\$6,300	4.0% of Directs
Permits & Fees (3)	\$2,232,000	\$15,500	\$12 Per SF GBA
Legal & Accounting	\$226,000	\$1,600	1.0% of Directs
Taxes & Insurance	\$226,000	\$1,600	1.0% of Directs
Developer Fee	\$904,000	\$6,300	4.0% of Directs
Marketing/Lease-Up - Residential	\$360,000	\$2,500	Allowance
Contingency	<u>\$146,000</u>	<u>\$1,000</u>	3.0% of Indirects
Total Indirect Costs	\$4,998,000	\$34,700	22.1% of Directs
IV. Financing Costs	\$2,260,000	\$15,700	10.0% of Directs
V. Total Development Costs	\$42,929,000	\$298,100	\$238 Per SF GBA

<sup>(1)</sup> Does not include the payment of prevailing wages.

<sup>(2)</sup> KMA gross estimate. Not verified by KMA or the City.

<sup>(3)</sup> Per City.

TABLE A-4

NET OPERATING INCOME AND FINANCING SURPLUS/(DEFICIT)

AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY

CITY OF CARLSBAD

**TOWNHOMES** 

	<u>Unit Size</u>	# of <u>Units</u>	<u>\$/SF</u>	<u>\$/Month</u>	<u>Annual</u>
I. Gross Scheduled Income (GSI)					
Two Bedroom Townhome	1,100 SF	72	\$1.74	\$1,910	\$1,653,150
Three Bedroom Townhome	<u>1,400</u> SF	<u>72</u>	<u>\$1.70</u>	<u>\$2,380</u>	\$2,056,000
Total/Average	1,250 SF	144	\$1.72	\$2,146	\$3,709,150
Add: Other Income			\$12	/Unit/Month	<u>\$21,000</u>
Total Gross Scheduled Income (GSI)					\$3,730,150
(Less) Vacancy			5.0%	of GSI	(\$187,000)
Effective Gross Income (EGI)					\$3,543,150
II. Operating Expenses					
(Less) Operating Expenses			\$3,800	/Unit/Year	(\$547,000)
(Less) Property Taxes (1)			\$3,424	/Unit/Year	(\$493,000)
(Less) Replacement Reserves			<u>\$250</u>	/Unit/Year	<u>(\$36,000)</u>
Total Expenses				/Unit/Year	(\$1,076,000)
			30.4%	of EGI	
III. Net Operating Income (NOI)					\$2,467,150
IV. Capitalized Value					
Net Operating Income Capitalization Rate					\$2,467,150 5.0%
Capitalized Value			\$342,700	/Unit	\$49,343,000
(Less) Cost of Sale			3.0%	) )	(\$1,480,000)
(Less) Developer Profit			10.0%	)	(\$4,934,000)
Net Sales Proceeds					\$42,929,000
V. (Less) Development Costs					(\$42,929,000)
VI. Financing Surplus/(Deficit)			\$0	/Unit	\$0

<sup>(1)</sup> Based on capitalized income approach; assumes a 1.0% tax rate and 5.0% cap rate.

# Market-Rate Prototypes Garden Apartments

Affordable Housing Impact Fee Nexus Study
City of Carlsbad

### TABLE A-5 GARDEN APARTMENTS

## PROJECT DESCRIPTION AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

I. Site Area 9.00 Acres

#### II. Gross Building Area

Residential Area	154,800 SF	95%
Common Area	<u>8,147</u> SF	<u>5%</u>
Total Gross Building Area (GBA)	162,947 SF	100%

III.	Unit Mix	# of Units		<u>Unit Size</u>
	One Bedroom	54 Units	30%	700 SF
	Two Bedroom	108 Units	60%	900 SF
	Three Bedroom	<u>18</u> Units	<u>10%</u>	<u>1,100</u> SF
	Total	180 Units	100%	860 SF

- IV. Number of Stories 2 3 Stories
- V. Density 20.0 Units/Acre
- VI. Construction Type V

#### VII. Parking

#### **Number of Spaces**

One Bedroom	1.5 Spaces/Unit	81 Spaces
Two and Three Bedroom	2.0 Spaces/Unit	252 Spaces
Visitor	0.25 Spaces/Unit	<u>45</u> Spaces
Total		378 Spaces

#### Parking Type

Garage Spaces	25% of Total	95 Spaces
Carport Spaces	1.0 Space/Unit	180 Spaces
Surface Spaces		<u>103</u> Spaces
Total		378 Spaces

TABLE A-6

GARDEN APARTMENTS

## ESTIMATED DEVELOPMENT COSTS AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

	<u>Totals</u>	<u>Per Unit</u>	Comments
I. Acquisition Costs	\$9,801,000	\$54,500	\$25 Per SF Site
II. Direct Costs (1)			
Off-Site Improvements (2)	\$784,000	\$4,400	\$2 Per SF Site
On-Sites/Landscaping	\$3,136,000	\$17,400	\$8 Per SF Site
Parking - Carport	\$360,000	\$2,000	\$2,000 Per Carport Space
Parking - Garage	\$950,000	\$5,300	\$10,000 Per Garage Space
Shell Construction	\$17,109,000	\$95,100	\$105 Per SF GBA
FF&E/Amenities	\$100,000	\$600	Allowance
Contingency	\$1,122,000	<u>\$6,200</u>	5.0% of Directs
Total Direct Costs	\$23,561,000	\$130,900	\$145 Per SF GBA
III. Indirect Costs			
Architecture & Engineering	\$942,000	\$5,200	4.0% of Directs
Permits & Fees (3)	\$2,790,000	\$15,500	\$17 Per SF GBA
Legal & Accounting	\$236,000	\$1,300	1.0% of Directs
Taxes & Insurance	\$236,000	\$1,300	1.0% of Directs
Developer Fee	\$942,000	\$5,200	4.0% of Directs
Marketing/Lease-Up	\$450,000	\$2,500	Allowance
Contingency	<u>\$168,000</u>	<u>\$900</u>	3.0% of Indirects
Total Indirect Costs	\$5,764,000	\$32,000	24.5% of Directs
IV. Financing Costs	\$2,356,000	\$13,100	10.0% of Directs
V. Total Development Costs	\$41,482,000	\$230,500	\$255 Per SF GBA

Prepared by: Keyser Marston Associates, Inc.

Filename: i: Carlsbad\_Nexus Study\_ Prototypes\_v7\_08-04-13;9/6/2013;rks

<sup>(1)</sup> Does not assume payment of prevailing wages.

<sup>(2)</sup> KMA gross estimate. Not verified by KMA or the City.

<sup>(3)</sup> Per City.

TABLE A-7

NET OPERATING INCOME AND FINANCING SURPLUS/(DEFICIT)

AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY

**CITY OF CARLSBAD** 

#### **GARDEN APARTMENTS**

	<u>Unit Size</u>	# of <u>Units</u>	<u>\$/SF</u>	\$/Month	<u>Annual</u>
I. Gross Scheduled Income (GSI)					
One Bedroom	700 SF	54	\$2.10	\$1,470	\$953,000
Two Bedroom	900 SF	108	\$2.05	\$1,850	\$2,398,000
Three Bedroom	<u>1,100</u> SF	<u>18</u>	<u>\$1.98</u>	<u>\$2,180</u>	\$471,30 <u>0</u>
Total/Average	860 SF	180	\$2.06	\$1,770	\$3,822,300
Add: Other Income			\$15	/Unit/Month	<u>\$32,400</u>
Total Gross Scheduled Income (GSI)					\$3,854,700
(Less) Vacancy			5.0%	of GSI	<u>(\$192,700)</u>
Effective Gross Income (EGI)					\$3,662,000
II. Operating Expenses					
(Less) Operating Expenses			\$4,200	/Unit/Year	(\$756,000)
(Less) Property Taxes (1)			\$2,650	/Unit/Year	(\$477,000)
(Less) Replacement Reserves			<u>\$250</u>	/Unit/Year	(\$45,000)
Total Expenses			\$7,100	/Unit/Year	(\$1,278,000)
			34.9%	of EGI	
III. Net Operating Income (NOI)					\$2,384,000
IV. Capitalized Value					
Net Operating Income Capitalization Rate					\$2,384,000 5.0%
Capitalized Value			\$264,900	/Unit	\$47,680,000
(Less) Cost of Sale			3.0%		(\$1,430,000)
(Less) Developer Profit			10.0%		(\$4,768,000)
Net Sales Proceeds					\$41,482,000
V. (Less) Development Costs					(\$41,482,000)
VI. Financing Surplus/(Deficit)			\$0	/Unit	\$0

<sup>(1)</sup> Based on capitalized income approach; assumes a 1.0% tax rate and 5.0% cap rate.

# Market-Rate Prototypes Stacked-Flats

Affordable Housing Impact Fee Nexus Study
City of Carlsbad

TABLE A-8 STACKED-FLATS

## PROJECT DESCRIPTION AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

ı.	Site Area	7.00 Acres		
II.	Gross Building Area			
	Residential Area	172,200 SF	90%	
	Common Area	<u>19,133</u> SF	<u>10%</u>	
	Total Gross Building Area (GBA)	191,333 SF	100%	
III.	Unit Mix	# of Units	<u>l</u>	Jnit Size
	One Bedroom	84 Units	40%	700 SF
	Two Bedroom	126 Units	60%	900 SF
	Three Bedroom	<u>0</u> Units	<u>0%</u>	<u>1,100</u> SF
	Total	210 Units	100%	820 SF
IV.	Number of Stories	3 Stories		
v.	Density	30.0 Units/Acr	·e	
VI.	Construction Type	Type V		
VII.	Parking			
	Number of Spaces			

### One Bedroom

Two and Three Bedroom	2.0 Spaces/Unit	252 Spaces
Visitor	0.25 Spaces/Unit	53 Spaces
Total		431 Spaces
Parking Type		
Garage Spaces	25% of Total	108 Spaces
Carport Spaces	1.0 Space/Unit	210 Spaces
Surface Spaces		113 Spaces
Total		431 Spaces

1.5 Spaces/Unit

126 Spaces

TABLE A-9 STACKED-FLATS

## ESTIMATED DEVELOPMENT COSTS AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

	<u>Totals</u>	Per Unit	<u>Notes</u>
I. Acquisition Costs	\$10,672,000	\$50,800	\$35 Per SF Site
II. Direct Costs (1)			
Off-Site Improvements (2)	\$610,000	\$2,900	\$2 Per SF Site
On-Site Improvements/Landscaping	\$2,439,000	\$11,600	\$8 Per SF Site
Parking - Carport	\$420,000	\$2,000	\$2,000 Per Carport Space
Parking - Garage	\$1,080,000	\$5,100	\$10,000 Per Garage Space
Shell Construction	\$22,960,000	\$109,300	\$120 Per SF GBA
Amenities/FF&E	\$250,000	\$1,200	Allowance
Contingency	<u>\$1,388,000</u>	<u>\$6,600</u>	5.0% of Directs
Total Direct Costs	\$29,147,000	\$138,800	\$152 Per SF GBA
III. Indirect Costs			
Architecture & Engineering	\$1,166,000	\$5,600	4.0% of Directs
Permits & Fees (3)	\$3,255,000	\$15,500	\$17 Per SF GBA
Legal & Accounting	\$291,000	\$1,400	1.0% of Directs
Taxes & Insurance	\$291,000	\$1,400	1.0% of Directs
Developer Fee	\$1,166,000	\$5,600	4.0% of Directs
Marketing/Lease-Up	\$525,000	\$2,500	Allowance
Contingency	\$201,000	<u>\$1,000</u>	3.0% of Indirects
Total Indirect Costs	\$6,895,000	\$32,800	23.7% of Directs
IV. Financing Costs	\$2,915,000	\$13,900	10.0% of Directs
V. Total Development Costs	\$49,629,000	\$236,300	\$259 Per SF GBA

<sup>(1)</sup> Does not include the payment of prevailing wages.

<sup>(2)</sup> KMA gross estimate. Not verified by KMA or the City.

<sup>(3)</sup> Per City.

TABLE A-10

NET OPERATING INCOME AND FINANCING SURPLUS/(DEFICIT)

AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY

**CITY OF CARLSBAD** 

STACKED-FLATS

	<u>Unit Size</u>	# of <u>Units</u>	<u>\$/SF</u>	\$/Month	<u>Annual</u>
I. Gross Scheduled Income (GSI)					
One Bedroom	700 SF	84	\$2.20	\$1,540	\$1,554,700
Two Bedroom	<u>900</u> SF	<u>126</u>	<u>\$2.20</u>	<u>\$1,980</u>	<u>\$2,994,000</u>
Total/Average	820 SF	210	\$2.20	\$1,805	\$4,548,700
Add: Other Income			\$15	/Unit/Month	<u>\$37,800</u>
Total Gross Scheduled Income (GSI)					\$4,586,500
(Less) Vacancy			5.0%	of GSI	<u>(\$229,300)</u>
Effective Gross Income (EGI)					\$4,357,200
II. Operating Expenses					
(Less) Operating Expenses			\$4,200	/Unit/Year	(\$882,000)
(Less) Property Taxes (1)			\$2,714	/Unit/Year	(\$570,000)
(Less) Replacement Reserves			<u>\$250</u>	/Unit/Year	<u>(\$53,000)</u>
Total Expenses			\$7,167	/Unit/Year	(\$1,505,000)
			34.5%	of EGI	
III. Net Operating Income (NOI)					\$2,852,200
IV. Capitalized Value					
Net Operating Income Capitalization Rate					\$2,852,200 5.0%
Capitalized Value			\$271,600	/Unit	\$57,044,000
(Less) Cost of Sale			3.0%		(\$1,711,000)
(Less) Developer Profit			10.0%		(\$5,704,000)
Net Sales Proceeds					\$49,629,000
V. (Less) Development Costs					(\$49,629,000)
VI. Financing Surplus/(Deficit)			\$0	/Unit	\$0

<sup>(1)</sup> Based on capitalized income approach; assumes a 1.0% tax rate and 5.0% cap rate.

## Market-Rate Prototypes Mixed-Use Rental

Affordable Housing Impact Fee Nexus Study
City of Carlsbad

TABLE A-11 MIXED-USE RENTAL

### PROJECT DESCRIPTION AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

I.	Site Area	0.50 Acre

#### II. Gross Building Area

500 SF 95%
553 SF <u>5%</u>
053 SF 100%

Retail Area 3,000 SF

Total Gross Building Area 14,053 SF

III.	Unit Mix	# of Units	# of Units	
	One Bedroom	7 Units	50%	650 SF
	Two Bedroom	7 Units	50%	850 SF
	Three Bedroom	<u>0</u> Units	<u>0%</u>	<u>1,000</u> SF
	Total	14 Units	100%	750 SF

#### IV. Number of Stories

Residential 2 Stories

Retail 1 Story (ground floor)

Total 3 Stories

#### V. Density 28.0 Units/Acre

VI. Construction Type Type V

#### VII. Parking

Parking Type		Surface and Tuck-Under
Number of Spaces - Residential		
One Bedroom	1.5 Spaces/Unit	10.5 Spaces
Two and Three Bedroom	2.0 Spaces/Unit	14 Spaces
Visitor	0.25 Spaces/Unit	<u>4</u> Spaces
Total		28 Spaces

Number of Spaces - Retail 1.0 Space/300 SF 10 Spaces

Total Number of Spaces 38 Spaces

TABLE A-12 MIXED-USE RENTAL

# ESTIMATED DEVELOPMENT COSTS AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

	<u>Totals</u>	Per Unit		<u>Notes</u>
I. Acquisition Costs	\$1,307,000	\$93,400	\$60	Per SF Site
II. Direct Costs (1)				
Off-Site Improvements (2)	\$44,000	\$3,100	\$2	Per SF Site
Demolition	\$50,000	\$3,600		Allowance
On-Site Improvements/Landscaping	\$174,000	\$12,400	\$8	Per SF Site
Parking	\$95,000	\$6,800	\$10,000	Per Space @ 25%
Shell Construction - Residential	\$1,437,000	\$102,600	\$130	Per SF GBA - Res.
Shell Construction - Retail	\$300,000	\$21,400	\$100	Per SF GBA - Retail
Tenant Improvements - Retail	\$60,000	\$4,300	\$20	Per SF - Retail
Amenities/FF&E	\$35,000	\$2,500		Allowance
Contingency	<u>\$110,000</u>	<u>\$7,900</u>	5.0%	of Directs
Total Direct Costs	\$2,305,000	\$164,600	\$164	Per SF GBA
III. Indirect Costs				
Architecture & Engineering	\$138,000	\$9,900	6.0%	of Directs
Permits & Fees (3)	\$253,000	\$18,100	\$18	Per SF GBA
Legal & Accounting	\$23,000	\$1,600	1.0%	of Directs
Taxes & Insurance	\$23,000	\$1,600	1.0%	of Directs
Developer Fee	\$92,000	\$6,600	4.0%	of Directs
Marketing/Lease-Up - Residential	\$35,000	\$2,500		Allowance
Marketing/Lease-Up - Retail	\$24,000	\$1,700	\$8	Per SF GBA - Retail
Contingency	\$17,000	\$1,200	3.0%	of Indirects
Total Indirect Costs	\$605,000	\$43,200	26.2%	of Directs
IV. Financing Costs	\$231,000	\$16,500	10.0%	of Directs
V. Total Development Costs	\$4,448,000	\$317,700	\$317	Per SF GBA

<sup>(1)</sup> Does not include the payment of prevailing wages.

<sup>(2)</sup> KMA gross estimate. Not verified by KMA or the City.

<sup>(3)</sup> Per City. Reflects \$15,474 per unit and \$36,000 for the retail and parking components.

TABLE A-13 MIXED-USE RENTAL

## NET OPERATING INCOME AND CAPITALIZED VALUE - RESIDENTIAL AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

		# of			
	<u>Unit Size</u>	<u>Units</u>	<u>\$/SF</u>	\$/Month	<u>Annual</u>
I. Gross Scheduled Income (GSI)					
One Bedroom	650 SF	7	\$2.65	\$1,720	\$144,815
Two Bedroom	<u>850</u> SF	<u>7</u>	<u>\$2.50</u>	<u>\$2,130</u>	<u>\$179,000</u>
Total/Average	750 SF	14	\$2.57	\$1,927	\$323,815
Add: Other Income			\$15	/Unit/Month	<u>\$2,500</u>
Total Gross Scheduled Income (GSI)					\$326,315
(Less) Vacancy			5.0%	of GSI	<u>(\$16,000)</u>
Effective Gross Income (EGI)					\$310,315
II. Operating Expenses					
(Less) Operating Expenses			\$4,200	/Unit/Year	(\$59,000)
(Less) Property Taxes (1)			\$2,929	/Unit/Year	(\$41,000)
(Less) Replacement Reserves			<u>\$250</u>	/Unit/Year	<u>(\$4,000)</u>
Total Expenses			\$7,429	/Unit/Year	(\$104,000)
			33.5%	of EGI	
III. Net Operating Income (NOI)					\$206,315

<sup>(1)</sup> Based on capitalized income approach; assumes a 1.0% tax rate and 5.0% cap rate.

TABLE A-14 MIXED-USE RENTAL

## NET OPERATING INCOME AND CAPITALIZED VALUE - RETAIL AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

I. Gross Scheduled Income (GSI)	<u>SF</u>	Rent/SF	Total <u>Annual</u>
Total Retail GSI	3,000	\$2.50 /SF/Month/NNN	\$90,000
(Less) Vacancy - Retail		5.0% of GSI - Retail	<u>(\$4,500)</u>
Total Effective Gross Income			\$85,500
(Less) Unreimbursed Expenses - Retail		5.0% of EGI - Retail	<u>(\$4,000)</u>
II. Net Operating Income (NOI)			\$81,500

### TABLE A-15 MIXED-USE RENTAL

## FINANCING SURPLUS/(DEFICIT) AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

### I. Financing Surplus/(Deficit)

II. Financing Surplus/(Deficit)	\$0 /Unit	\$0
(Less) Development Costs		(\$4,448,000)
Net Sales Proceeds		\$4,448,000
(Less) Developer Profit	12.0%	(\$628,000)
(Less) Cost of Sale	3.0%	(\$157,000)
Capitalized Value		\$5,233,000
Total Net Operating Income Capitalization Rate		\$287,815 5.5%
Net Operating Income - Residential Net Operating Income - Retail		\$206,315 \$81,500
		4

### **B. AFFORDABLE VALUES**

Affordable rent levels are a function of the income level for which the unit is aimed to be affordable; the calculations are formula-based according to a combination of statute and policy, both local and Statewide.

The Area Median Income is the starting point for the affordable rent calculation. The U.S. Department of Housing and Urban Development (HUD) publishes the Area Median Income (AMI) for each county annually. Appendix II – Table B-1 presents the income limits for households at 50% AMI and 80% AMI.

#### **Affordable Rent Levels**

The calculation of affordable rents at 50% and 80% AMI is presented in Appendix II – Table B-2. The calculation of affordable rents incorporates the following key assumptions:

- 1. Assignment of family size (number of persons) vs. unit size (number of bedrooms) based on the number of persons exceeding the number of bedrooms by one.
- 2. Calculation of affordable rents based on the formulas shown in Exhibit 22.

Exhibit 22: Affordable Rent Level Calculations					
Household Income Affordable Rent Calculation					
Very-low:	50% of AMI	30% of 50% AMI			
Low:	80% of AMI	30% of 70% AMI			

- 3. 50% and 70% income figures extrapolated from the figures shown in the Income Limits for 2012, published by the U.S. Department of Housing and Urban Development as of December, 2011.
- 4. Utility allowances as determined by the County of San Diego, assuming a common utility profile for newer units.

Based on the above assumptions, affordable rent levels for Very low- and Low-income households are shown in Exhibit 23:

Exhibit 23: Affordable Rent Levels – Very Low- and Low-Income					
Number of Bedrooms Very low-income Low- income					
One	\$715	\$1,087			
Two	\$855	\$1,217			
Three	\$987	\$1,348			

The rent levels so defined (by unit size and income category) govern the maximum rent that a building owner may charge for a particular unit.

TABLE B-1
INCOME DEFINITIONS, 2012
AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY
CITY OF CARLSBAD

Family Size	50% AMI	80% AMI
1 Daman	Ć20.4F0	¢45.000
1 Person	\$28,150	\$45,000
2 Persons	\$32,150	\$51,400
3 Persons	\$36,150	\$57,850
4 Persons	\$40,150	\$64,250
5 Persons	\$43,400	\$69,400

Source: U.S. Department of Housing and Urban Development (HUD), effective December 1, 2011.

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TABLE B-2

AFFORDABLE RENTS, 2012

AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY

CITY OF CARLSBAD

## GARDEN APARTMENTS Affordable

	Number of Bedrooms	One	Two	Three
ı.	Low Income Housing Tax Credits - 50% AMI			
	Percent of AMI	50.0%	50.0%	50.0%
	Family Size	1.5	3.0	4.5
	Household Income (Rounded) (1)	\$30,150	\$36,150	\$41,775
	Income Allocation to Housing	30%	30%	30%
	Monthly Housing Cost	\$753	\$903	\$1,044
	(Less) Utility Allowance (2)	<u>(\$38)</u>	<u>(\$48)</u>	<u>(\$57)</u>
	Maximum Monthly Rent @ 50% AMI	\$715	\$855	\$987
II.	Low Income Housing Tax Credits - 60% AMI			
	Percent of AMI	60.0%	60.0%	60.0%
	Family Size	1.5	3.0	4.5
	Household Income (Rounded) (1)	\$36,180	\$43,380	\$50,130
	Income Allocation to Housing	30%	30%	30%
	Monthly Housing Cost	\$904	\$1,084	\$1,253
	(Less) Utility Allowance (2)	<u>(\$38)</u>	<u>(\$48)</u>	<u>(\$57)</u>
	Maximum Monthly Rent @ 60% AMI	\$866	\$1,036	\$1,196
II.	Households earning up to 80% AMI			
	Percent of AMI (3)	70.0%	70.0%	70.0%
	Family Size	2	3	4
	Household Income (Rounded) (1)	\$45,010	\$50,610	\$56,210
	Income Allocation to Housing	30%	30%	30%
	Monthly Housing Cost	\$1,125	\$1,265	\$1,405
	(Less) Utility Allowance (2)	<u>(\$38)</u>	<u>(\$48)</u>	<u>(\$57)</u>
	Maximum Monthly Rent @ 80% AMI	\$1,087	\$1,217	\$1,348

<sup>(1)</sup> State of California Department of Housing and Community Development (HCD) 2012 income limits.

(2) Per the San Diego County Department of Housing and Community Development 2012 Utility Allowance Schedule, July 1, 2012.

	<u>One</u>	<u>Two</u>	<u>Three</u>
Electric Heat	\$7	\$8	\$10
Gas Cooking	\$2	\$3	\$3
Gas Water Heater	\$8	\$10	\$12
Other Electric	<u>\$21</u>	<u>\$27</u>	<u>\$32</u>
Total Utilities	\$38	\$48	\$57

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#### C. AFFORDABILITY GAPS

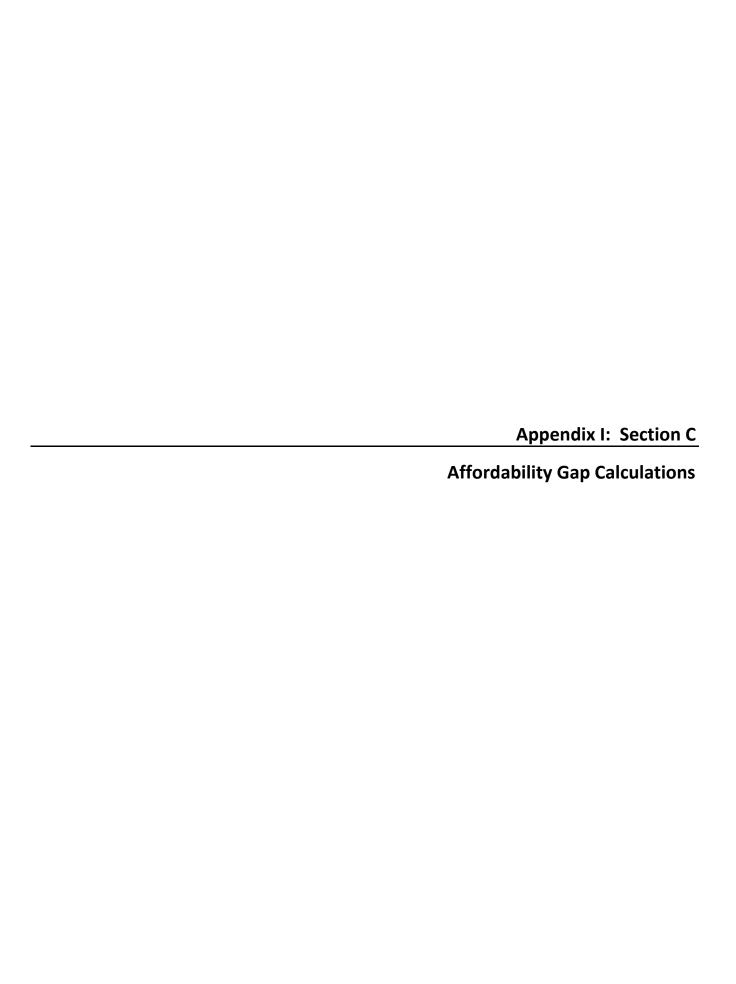
The calculation of affordability gap for an affordable housing prototype development is presented in Appendix II – Tables C-1 through C-4. The affordability gaps were calculated assuming affordable housing in the City is provided in an garden apartment development at two income levels: (1) all units affordable to Very low-income households (earning up to 50% AMI); and (2) all units affordable to Low-income households (earning up to 80% AMI).

The Very low-income units are assumed to be financed with Low Income Housing Tax Credits and tax-exempt bond financing. The Low-income units are assumed to be financed using conventional debt and equity financing sources.

The resulting financing gap generated reflects of the difference between warranted investment and development costs. In the nexus study, the affordability gap is the amount of subsidy dollars required to bridge the difference between the two values.

Exhibit 24 provides a summary of the affordability gaps used in the analysis:

Exhibit 24: Affordability Gap Per Unit – Garden Apartments					
Very low income Low-income					
(\$119,000)	(\$112,500)				



### **TABLE C-1**

## GARDEN APARTMENTS Affordable

# PROJECT DESCRIPTION - GARDEN APARTMENTS AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

Site Area	5.0	0 Acres		
Gross Building Area				
Residential Area			95%	
Total Gloss building Area (GBA)	108,00	4 31	100%	
Unit Mix	<u># of</u>	<u>Units</u>		<u>Unit Size</u>
One Bedroom	2	5 Units	20%	550 SF
Two Bedroom	6	2 Units	50%	800 SF
Three Bedroom	<u>3</u>	8 Units	<u>30%</u>	<u>1,050</u> SF
Total	12	5 Units	100%	826 SF
Number of Stories		3 5	Stories	
Density		25.0 l	Jnits/Acre	!
Construction Type			Type V	
Parking				
Number of Spaces				
One Bedroom	1.5 Spaces/Unit	38 9	Spaces	
Two and Three Bedroom	2.0 Spaces/Unit		-	
Visitor	0.26 Spaces/Unit	<u>32</u> S	Spaces	
Total				
Parking Type				
	1.0 Space/Unit	125 9	Spaces	
Surface Spaces	•		-	
Total		·	-	
	Residential Area Common Area Total Gross Building Area (GBA)  Unit Mix One Bedroom Two Bedroom Three Bedroom Total  Number of Stories  Density  Construction Type  Parking  Number of Spaces One Bedroom Two and Three Bedroom Visitor Total  Parking Type Carport Spaces Surface Spaces	Residential Area 103,255 Common Area 5,43 Total Gross Building Area (GBA) 108,68  Unit Mix # of One Bedroom 2 Two Bedroom 6 Three Bedroom 3 Total 12  Number of Stories  Density  Construction Type  Parking  Number of Spaces One Bedroom 1.5 Spaces/Unit Two and Three Bedroom 2.0 Spaces/Unit Visitor 0.26 Spaces/Unit Total  Parking Type Carport Spaces 1.0 Space/Unit Surface Spaces	Residential Area 103,250 SF Common Area 5,434 SF Total Gross Building Area (GBA) 108,684 SF  Unit Mix # of Units One Bedroom 25 Units Two Bedroom 62 Units Three Bedroom 38 Units Total 125 Units  Number of Stories 3 S  Density 25.0 C  Construction Type  Parking  Number of Spaces One Bedroom 1.5 Spaces/Unit 38 S Two and Three Bedroom 2.0 Spaces/Unit 200 S Visitor 0.26 Spaces/Unit 32 S Parking Type Carport Spaces 1.0 Space/Unit 125 S Surface Spaces 1.0 Space/Unit 125 S	Residential Area   103,250 SF   95%   Common Area   5,434 SF   5%   100%

TABLE C-2

ESTIMATED DEVELOPMENT COSTS

AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY

CITY OF CARLSBAD

GARDEN APARTMENTS
Affordable

		50% AMI			80% AMI			
	<u>Totals</u>	Per Unit	<u>Comments</u>	<u> 1</u>	<u>otals</u>	Per Unit	<u>Comments</u>	
I. Acquisition Costs	\$6,534,000	\$52,300	\$30 Per SF Site	\$6,534	,000	\$52,300	\$30 Per SF Site	
II. Direct Costs (1)								
Off-Site Improvements (2)	\$653,000	\$5,200	\$3 Per SF Site	\$653	,000	\$5,200	\$3 Per SF Site	
On-Sites/Landscaping	\$2,178,000	\$17,400	\$10 Per SF Site	\$2,178	,000	\$17,400	\$10 Per SF Site	
Parking - Carport	\$250,000	\$2,000	\$2,000 Per Space	\$250	,000	\$2,000	\$2,000 Per Space	
Shell Construction	\$11,955,000	\$95,600	\$110 Per SF GBA	\$11,955	,000	\$95,600	\$110 Per SF GBA	
FF&E/Amenities	\$200,000	\$1,600	Allowance	\$200	,000	\$1,600	Allowance	
Contingency	\$762,000	\$6,100	5.0% of Directs	\$762	,000	<u>\$6,100</u>	5.0% of Directs	
Total Direct Costs	\$15,998,000	\$128,000	\$147 Per SF GBA	\$15,998	,000	\$128,000	\$147 Per SF GBA	
III. Indirect Costs								
Architecture & Engineering	\$960,000	\$7,700	6.0% of Directs	\$960	,000	\$7,700	6.0% of Directs	
Permits & Fees (3)	\$1,938,000	\$15,500	\$18 Per SF GBA	\$1,938	,000	\$15,500	\$18 Per SF GBA	
Legal & Accounting	\$160,000	\$1,300	1.0% of Directs	\$160	,000	\$1,300	1.0% of Directs	
Taxes & Insurance	\$240,000	\$1,900	1.5% of Directs	\$240	,000	\$1,900	1.5% of Directs	
Developer Fee	\$2,500,000	\$20,000	15.6% of Directs	\$640	,000	\$5,100	4.0% of Directs	
Marketing/Lease-Up	\$313,000	\$2,500	Allowance	\$313	,000	\$2,500	Allowance	
Contingency	\$183,000	\$1,500	3.0% of Indirects	\$128	,000	\$1,000	3.0% of Indirects	
Total Indirect Costs	\$6,294,000	\$50,400	39.3% of Directs	\$4,379	,000	\$35,000	27.4% of Directs	
IV. Financing Costs	\$2,800,000	\$22,400	17.5% of Directs	\$2,480	,000	\$19,800	15.5% of Directs	
V. Total Development Costs	\$31,626,000	\$253,000	\$291 Per SF GBA	\$29,391,	000	\$235,100	\$270 Per SF GBA	

Prepared by: Keyser Marston Associates, Inc.

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<sup>(1)</sup> Does not assume payment of prevailing wages.

<sup>(2)</sup> KMA gross estimate. Not verified by KMA or the City.

<sup>(3)</sup> Per City.

TABLE C-3

NET SALES PROCEEDS

AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY
CITY OF CARLSBAD

GARDEN APARTMENTS
Affordable

			50% AMI			80% AMI		
		<u>Units</u>	\$/Month	<u>Annual</u>	<u>Units</u>	\$/Month	<u>Annual</u>	
I. Gross Scheduled Inco	ome (GSI)							
One Bedroom	@ 50% AMI	8	\$715	\$68,600				
One Bedroom	@ 60% AMI	17	\$866	\$176,700				
One Bedroom	@ 80% AMI				25	\$1,087	\$326,200	
Two Bedroom	@ 50% AMI	19	\$855	\$194,900				
Two Bedroom	@ 60% AMI	43	\$1,036	\$534,600				
Two Bedroom	@ 80% AMI				62	\$1,217	\$905,600	
Three Bedroom	@ 50% AMI	12	\$987	\$142,200				
Three Bedroom	@ 60% AMI	26	\$1,196	\$373,200				
Three Bedroom	@ 80% AMI				38	\$1,348	\$614,800	
Total/Average		125	\$745	\$1,117,000	125	\$1,231	\$1,846,600	
Add: Other Income		\$15	/Unit/Month	\$22,500	\$15	/Unit/Month	\$22,500	
Total Gross Scheduled Income (GSI)				\$1,139,500			\$1,869,100	
(Less) Vacancy		5.0%	of GSI	<u>(\$57,000)</u>	5.0%	of GSI	<u>(\$93,500)</u>	
Effective Gross Income (EGI)				\$1,082,500			\$1,775,600	
II. Operating Expenses								
(Less) Operating Expenses		\$4,800	/Unit/Year	(\$600,000)	\$4,800	/Unit/Year	(\$600,000)	
(Less) Property Taxes			/Unit/Year	\$0 (1)		/Unit/Year	(\$176,000) (2)	
(Less) Replacement Reserves		<u>\$250</u>	/Unit/Year	(\$31,000)	\$250	/Unit/Year	(\$31,000)	
Total Expenses		\$5,048	/Unit/Year	(\$631,000)	\$6,456	/Unit/Year	(\$807,000)	
		58.3%	of EGI		45.4%	of EGI		
III. Net Operating Income (NOI)				\$452,000			\$969,000	

<sup>(1)</sup> Assumes developer will partner with a non-profit organization.

<sup>(2)</sup> Based on capitalized income approach; assumes a 1.0% tax rate and 5.5% cap rate.

### **APPENDIX II**

TABLE C-4

GARDEN APARTMENTS

Affordable

## FINANCING SURPLUS/(DEFICIT) AFFORDABLE HOUSING IMPACT FEE NEXUS STUDY CITY OF CARLSBAD

	50% AMI	80% AMI			
I. Sources of Funds  Permanent Loan  Market Value of Tax Credits  Deferred Developer Fee	\$6,490,000 \$9,814,000 \$500,000	I. Capitalized Value  Net Operating Income \$969,000  Capitalization Rate 5.5%  Capitalized Value \$17,618,000			
Total Sources of Funds	\$16,804,000				
II. (Less) Development Costs	(\$31,626,000)	II.       (Less) Development Costs       (\$29,391,000)         (Less) Cost of Sale       3.0%       (\$529,000)         (Less) Developer Profit       10.0%       (\$1,762,000)         Net Sales Proceeds       (\$31,682,000)			
III. Financing Surplus/(Deficit)	(\$14,822,000)	(\$14,064,000)			
Per Unit	(\$119,000)	(\$112,500)			